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PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS	1		Web Page for STN Seminar Schedule - N. America
NEWS	2	JUL 28	CA/CAPplus patent coverage enhanced
NEWS	3	JUL 28	EPFULL enhanced with additional legal status information from the epline Register
NEWS	4	JUL 28	IFICDB, IFIPAT, and IFIUDB reloaded with enhancements
NEWS	5	JUL 28	STN Viewer performance improved
NEWS	6	AUG 01	INPADOCDB and INPAFAMDB coverage enhanced
NEWS	7	AUG 13	CA/CAPplus enhanced with printed Chemical Abstracts page images from 1967-1998
NEWS	8	AUG 15	CAOLD to be discontinued on December 31, 2008
NEWS	9	AUG 15	CAPplus currency for Korean patents enhanced
NEWS	10	AUG 27	CAS definition of basic patents expanded to ensure comprehensive access to substance and sequence information
NEWS	11	SEP 18	Support for STN Express, Versions 6.01 and earlier, to be discontinued
NEWS	12	SEP 25	CA/CAPplus current-awareness alert options enhanced to accommodate supplemental CAS indexing of exemplified prophetic substances
NEWS	13	SEP 26	WPIDS, WPINDEX, and WPIX coverage of Chinese and Korean patents enhanced
NEWS	14	SEP 29	IFICLS enhanced with new super search field
NEWS	15	SEP 29	EMBASE and EMBAL enhanced with new search and display fields
NEWS	16	SEP 30	CAS patent coverage enhanced to include exemplified prophetic substances identified in new Japanese-language patents
NEWS	17	OCT 07	EPFULL enhanced with full implementation of EPC2000
NEWS	18	OCT 07	Multiple databases enhanced for more flexible patent number searching
NEWS	19	OCT 22	Current-awareness alert (SDI) setup and editing enhanced
NEWS	20	OCT 22	WPIDS, WPINDEX, and WPIX enhanced with Canadian PCT Applications
NEWS	21	OCT 24	CHEMLIST enhanced with intermediate list of pre-registered REACH substances
NEWS	22	NOV 21	CAS patent coverage to include exemplified prophetic substances identified in English-, French-, German-, and Japanese-language basic patents from 2004-present
NEWS	23	NOV 26	MARPAT enhanced with FSORT command
NEWS	24	NOV 26	MEDLINE year-end processing temporarily halts availability of new fully-indexed citations
NEWS	25	NOV 26	CHEMSAFE now available on STN Easy
NEWS	26	NOV 26	Two new SET commands increase convenience of STN searching
NEWS	27	DEC 01	ChemPort single article sales feature unavailable

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,  
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS LOGIN Welcome Banner and News Items  
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 10:44:10 ON 01 DEC 2008

=>

Uploading

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Do you want to switch to the Registry File?

Choice (Y/n):

Switching to the Registry File...

Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> FILE REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 10:44:21 ON 01 DEC 2008

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 28 NOV 2008 HIGHEST RN 1076692-21-1

DICTIONARY FILE UPDATES: 28 NOV 2008 HIGHEST RN 1076692-21-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

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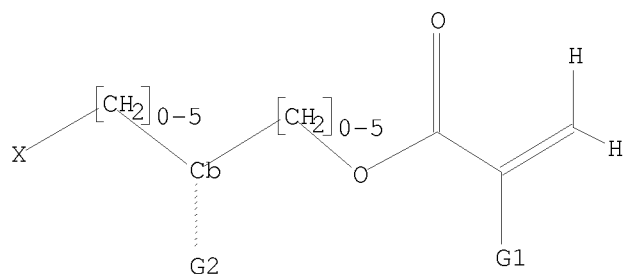
Uploading C:\Program Files\Stnexp\Queries\10588080-103(X).str

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR



G1 H, Me, Et, CF<sub>3</sub>, CCl<sub>3</sub>, CBr<sub>3</sub>, Cl<sub>3</sub>

G2 X, Ak, O

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 10:44:40 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 83778 TO ITERATE

2.4% PROCESSED 2000 ITERATIONS

0 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*

BATCH \*\*INCOMPLETE\*\*

PROJECTED ITERATIONS: 1658338 TO 1692782

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 10:44:44 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 1675106 TO ITERATE

59.7% PROCESSED 1000000 ITERATIONS

82 ANSWERS

INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

SEARCH TIME: 00.00.12

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*

BATCH \*\*INCOMPLETE\*\*

PROJECTED ITERATIONS: 1675106 TO 1675106

PROJECTED ANSWERS: 102 TO 172

L3 82 SEA SSS FUL L1

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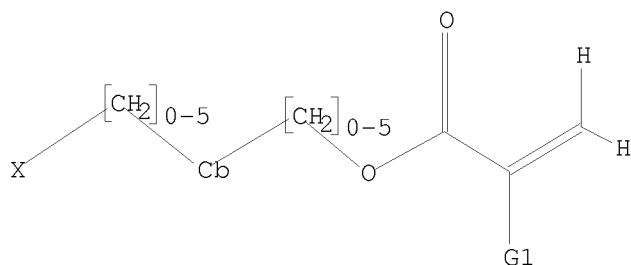
Uploading C:\Program Files\Stnexp\Queries\10588080-103(X)-K=0.str

L4 STRUCTURE UPLOADED

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L4 HAS NO ANSWERS

L4 STR



G1 H, Me, Et, CF3, CCl3, CBr3, CI3

G2 X, Ak, O

Structure attributes must be viewed using STN Express query preparation.

=> s l4

SAMPLE SEARCH INITIATED 10:46:55 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 83778 TO ITERATE

2.4% PROCESSED 2000 ITERATIONS 0 ANSWERS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*INCOMPLETE\*\*  
PROJECTED ITERATIONS: 1658338 TO 1692782  
PROJECTED ANSWERS: 0 TO 0

L5 0 SEA SSS SAM L4

=> s l4 full

FULL SEARCH INITIATED 10:47:00 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 1675106 TO ITERATE

59.7% PROCESSED 1000000 ITERATIONS 7 ANSWERS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.11

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*  
BATCH \*\*INCOMPLETE\*\*  
PROJECTED ITERATIONS: 1675106 TO 1675106  
PROJECTED ANSWERS: 7 TO 21

L6 7 SEA SSS FUL L4

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	358.10	358.31

FILE 'CAPLUS' ENTERED AT 10:47:32 ON 01 DEC 2008

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FILE COVERS 1907 - 1 Dec 2008 VOL 149 ISS 23  
FILE LAST UPDATED: 30 Nov 2008 (20081130/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/legal/infopolicy.html>

=> s 16

L7 5 L6

=> s 13

L8 36 L3

=> s 17 or 18

L9 40 L7 OR L8

=> s 19 not py > 2006

2972934 PY > 2006

L10 15 L9 NOT PY > 2006

=> d 19 ibib abs hitstr 1-

YOU HAVE REQUESTED DATA FROM 40 ANSWERS - CONTINUE? Y/(N):y

L9 ANSWER 1 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:1069178 CAPLUS

DOCUMENT NUMBER: 149:308569

TITLE: Fluorine-containing surface-modification agents giving high dynamic water repellency

INVENTOR(S): Takebe, Yoko; Shirota, Naoko; Watanabe, Kunio; Yokokoji, Osamu

PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
	JP 2008201909	A	20080904	JP 2007-39814	20070220
PRIORITY APPLN. INFO.:				JP 2007-39814	20070220
AB	Title agents contain F compds. having F-containing cyclic saturated hydrocarbyl groups and giving films with contact angle for H2O (x) $\geq 80^\circ$ and sliding angle for H2O (y) $\leq 20^\circ$ . Thus, an agent containing the F compound and 1,3-bis(trifluoromethyl)benzene was applied on a Si substrate and heated at $130^\circ$ for 1 min to give a test piece showing x $110^\circ$ , y $11^\circ$ , and receding angle $102^\circ$ .				
IT	705287-00-9P 953777-55-4P 960315-73-5P				
	RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)				
	(fluorine-containing surface-modification agents giving high dynamic water repellency)				

RN 705287-00-9 CAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3</sup>,7]dec-1-yl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 558482-17-0  
CMF C14 H5 F15 O2

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 953777-55-4 CAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1<sup>3</sup>,7]dec-2-yl ester, polymer with 3-hydroxytricyclo[3.3.1.1<sup>3</sup>,7]dec-1-yl 2-methyl-2-propenoate, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3</sup>,7]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (CA INDEX NAME)

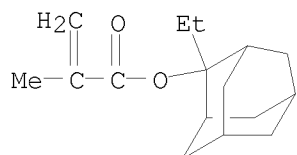
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CRN 558482-17-0  
CMF C14 H5 F15 O2

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

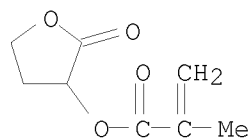
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CRN 209982-56-9  
CMF C16 H24 O2



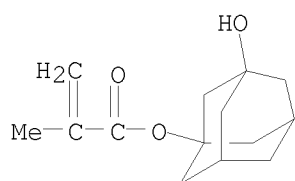
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CRN 195000-66-9  
CMF C8 H10 O4



CM 4

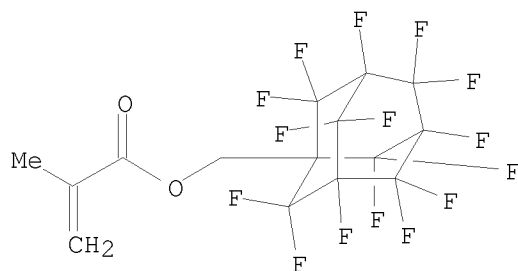
CRN 115372-36-6  
CMF C14 H20 O3



RN 960315-73-5 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 3-hydroxytricyclo[3.3.1.3,7]dec-1-yl ester,  
 polymer with (2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-  
 pentadecafluorotricyclo[3.3.1.3,7]dec-1-yl)methyl 2-methyl-2-propenoate  
 (CA INDEX NAME)

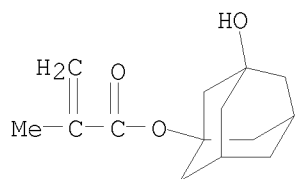
CM 1

CRN 933465-70-4  
 CMF C15 H7 F15 O2

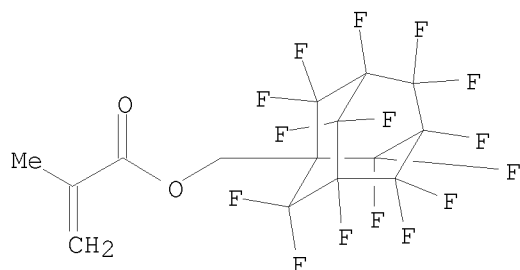


CM 2

CRN 115372-36-6  
 CMF C14 H20 O3



IT 933465-70-4P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (monomers; fluorine-containing surface-modification agents giving high  
 dynamic water repellency)  
 RN 933465-70-4 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, (2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-  
 pentadecafluorotricyclo[3.3.1.3,7]dec-1-yl)methyl ester (CA INDEX NAME)



L9 ANSWER 2 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2008:669563 CAPLUS  
 DOCUMENT NUMBER: 149:21050  
 TITLE: Fluoropolymers, their compositions for protective films of resists, and formation of resist patterns  
 INVENTOR(S): Takebe, Yoko; Shiota, Naoko; Yokokoji, Osamu  
 PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 22pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2008129519	A	20080605	JP 2006-317251	20061124

PRIORITY APPLN. INFO.: JP 2006-317251 20061124

AB The fluoropolymers, for immersion lithog. using nonaq. liquid media, have structural repeating units obtained by polymerization of  $\geq 1$  monomers with F content 40-75 weight% selected from (A)  $\text{CF}_2\text{:CFQCX:CYZ}$  (Q = methylene, dimethylene, trimethylene, tetramethylene, oxymethylene, oxydimethylene, oxytrimethylene; H groups in Q may be substituted with C1-12 alkyl, fluoroalkyl, alkoxy, or fluoroalkoxy, F; X, Y, Z = H, F) and (B)  $\text{CH}_2\text{:CRC(:O)OW}$  [R = H, F, C1-3 alkyl or fluoroalkyl; W = O-, C(:O)-, or C(:O)O-containing C4-20 fluorohydrocarbyl]. The compns. comprise the fluoropolymers and  $\geq 1$  hydrofluoro-based solvents selected from hydrofluorocarbons and hydrofluoro ethers. Resist patterns are formed by (1) forming photoresist layers on substrates, (2) applying the compns. on the photoresist layers to form protective film layers, (3) immersion lithog. treating, (4) dissolving the protective film layers in the hydrofluoro-based solvents for removal, and (5) developing the photoresist layers. The fluoropolymers having good dynamic oil-repellency are useful for high-speed immersion lithog.

IT 705287-00-9P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (fluoropolymers for protective films in formation of resist patterns by immersion lithog.)

RN 705287-00-9 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 558482-17-0  
 CMF C14 H5 F15 O2

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*



L9 ANSWER 3 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:445088 CAPLUS  
DOCUMENT NUMBER: 148:437339  
TITLE: Resist protective film-forming composition and process  
for formation of resist patterns  
INVENTOR(S): Takebe, Yoko; Shirota, Naoko; Yokokoji, Osamu  
PATENT ASSIGNEE(S): Asahi Glass Company, Limited, Japan  
SOURCE: PCT Int. Appl., 50pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008041476	A1	20080410	WO 2007-JP68100	20070918
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			

PRIORITY APPLN. INFO.: JP 2006-266679 A 20060929

AB The composition for use in immersion lithog. comprises both a fluoropolymer-containing and alkali-soluble material for resist protective films and a solvent containing  $\geq 1$  F-containing solvent selected from the group consisting of hydrofluorocarbon solvents and hydrofluoro ether solvents and which is to be applied to the surface of a photoresist layer containing a resist polymer which can be enhanced in the solubility in alkali by the action of an acid and has a fluorine content lower than that of the fluoropolymer.

IT 705287-00-9  
RL: TEM (Technical or engineered material use); USES (Uses)  
(resist protective film-forming compns. for immersion lithog. pattern formation)

RN 705287-00-9 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 558482-17-0  
CMF C14 H5 F15 O2

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 4 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:156327 CAPLUS  
DOCUMENT NUMBER: 148:251468  
TITLE: Manufacture of resin-coated substrates by smoothly removing alicyclic fluoropolymer-based protective

INVENTOR(S): outermost layers  
 Shirota, Naoko; Yokokoji, Osamu  
 PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 21pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2008023852	A	20080207	JP 2006-199131	20060721
PRIORITY APPLN. INFO.:			JP 2006-199131	20060721

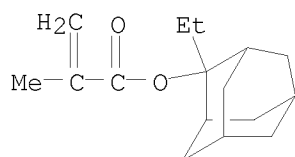
AB Substrates (e.g., Si wafers) having lower layers (e.g., photoimaging layers) of (A) polymers with F concentration <40% containing C1-20 groups chosen from  
 carboxy, hydroxy, and/or alkoxy(carbonyl) and outermost layers (e.g., protective layers, release layers) of (B) fluoropolymers containing  
 F-containing  
 alicyclic repeating units are treated with hydrofluorocarbon or hydrofluoro ether solvents to dissolve the outermost layers to reveal the A-containing lower layers on the top.  
 IT 705287-00-9P  
 RL: IMF (Industrial manufacture); REM (Removal or disposal); PREP (Preparation); PROC (Process)  
 (manufacture of resin-coated substrates by smoothly removing alicyclic fluoropolymer-based protective outermost layers)  
 RN 705287-00-9 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester, homopolymer (CA INDEX NAME)  
 CM 1  
 CRN 558482-17-0  
 CMF C14 H5 F15 O2

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 953777-55-4P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (manufacture of resin-coated substrates by smoothly removing alicyclic fluoropolymer-based protective outermost layers)  
 RN 953777-55-4 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl ester, polymer with 3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl 2-methyl-2-propenoate, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (CA INDEX NAME)  
 CM 1  
 CRN 558482-17-0  
 CMF C14 H5 F15 O2

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

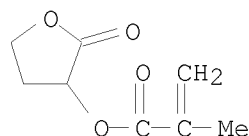
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CM 3

CRN 195000-66-9

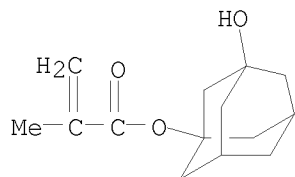
CMF C8 H10 O4



CM 4

CRN 115372-36-6

CMF C14 H20 O3



L9 ANSWER 5 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1455017 CAPLUS

DOCUMENT NUMBER: 148:79862

TITLE: Fluorine-containing polymer solution composition and its manufacture

INVENTOR(S): Shiota, Naoko; Wang, Shu-Zhong; Yokokoji, Osamu

PATENT ASSIGNEE(S): Asahi Glass Company, Limited, Japan

SOURCE: PCT Int. Appl., 35pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007145288	A1	20071221	WO 2007-JP62031	20070614
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,  
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,  
GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,  
BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:

JP 2006-167562

A 20060616

JP 2007-39816

A 20070220

AB The composition useful for coating, comprises a fluorine-containing polymer (F) containing a repeating unit (A) having a fluorine-containing alicyclic hydrocarbon

group in a side chain, and a fluorine-containing organic solvent (S). For example, the repeating unit (A) has a group (G) which is an n-valent group obtained by removing n hydrogen atoms (provided that n represents an integer of 1-4) from one or more cyclic saturated hydrocarbon compds. selected from adamantane, bicyclo[2.2.1]heptane, cyclopentane, cyclohexane and perhydronaphthalene, and substituting not less than 50% of the remaining hydrogen atoms with fluorine atoms. Thus, a composition is obtained from poly(1-perfluoroadamantyl methacrylate) dissolved in 1,3-bis(trifluoromethyl)benzene.

IT 705287-00-9P 935521-52-1P 960315-73-5P

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)

(manufacture of fluorine-containing alicyclic hydrocarbon polymer solution composition)

RN 705287-00-9 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 558482-17-0

CMF C14 H5 F15 O2

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

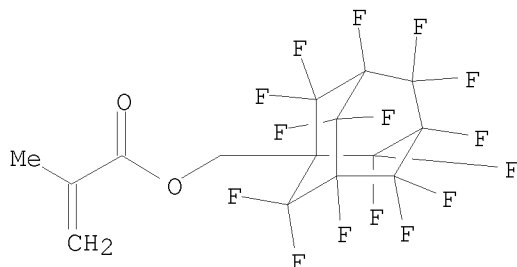
RN 935521-52-1 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 933465-70-4

CMF C15 H7 F15 O2



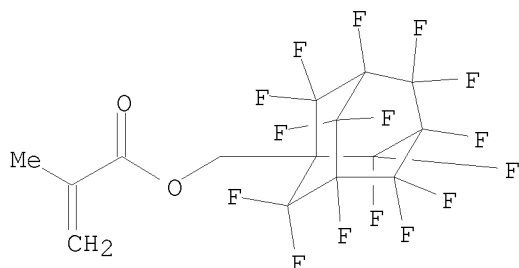
RN 960315-73-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester, polymer with (2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)methyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 933465-70-4

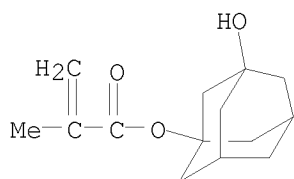
CMF C15 H7 F15 O2



CM 2

CRN 115372-36-6

CMF C14 H20 O3



IT 558482-17-0P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(monomer; manufacture of fluorine-containing alicyclic hydrocarbon polymer solution composition)

RN 558482-17-0 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1275469 CAPLUS

DOCUMENT NUMBER: 147:503019

TITLE: Fluorine-containing adamantane derivative, fluorine-containing adamantane derivative having polymerizable group, resin composition containing the same, and antireflection film

INVENTOR(S): Okada, Yasunari; Yamane, Hideki; Ito, Hajime; Matsumoto, Nobuaki

PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan

SOURCE: PCT Int. Appl., 40pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007125829	A1	20071108	WO 2007-JP58628	20070420
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.:

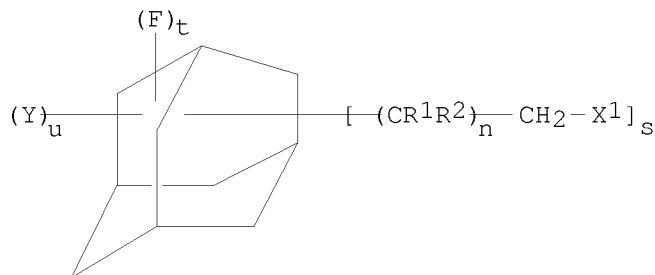
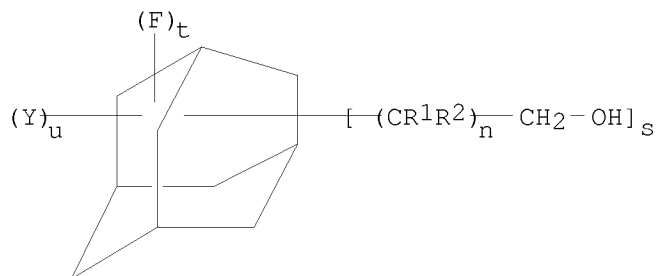
JP 2006-125441

A 20060428

OTHER SOURCE(S):

MARPAT 147:503019

GI



AB Disclosed is a F-containing adamantane derivative having a polymerizable group which has good mech. properties such as heat resistance and abrasion resistance and enables to obtain a cured product having a low refractive index. Also disclosed are a resin composition containing such a F-containing adamantane derivative having a polymerizable group, and a F-containing adamantane derivative which is useful as a reaction intermediate for production of a F-containing adamantane derivative having a polymerizable group or the like. Specifically disclosed are a -containing fadamantane derivative represented by the general formula I, a -containing adamantane fderiv. having a polymerizable group represented by the general formula II, and a resin composition containing the F-containing adamantane derivative having a polymerizable group. In the formulas

I and II, R1 and R2 may independently represent a H atom; n represents an integer of not less than 0; X1 may represent an acryloyloxy group; Y may represent a H atom; and s and t resp. represent an integer of 1-15 and u

represents an integer of 0-14, while satisfying the following relation:  $s + t + u = 16$ . (I)(III-a) (II).

IT 955959-35-0P 955959-36-1P 955959-37-2P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manufacture of fluorine-containing polymerizable adamantane compds. for resin compns. useful for antireflection films)

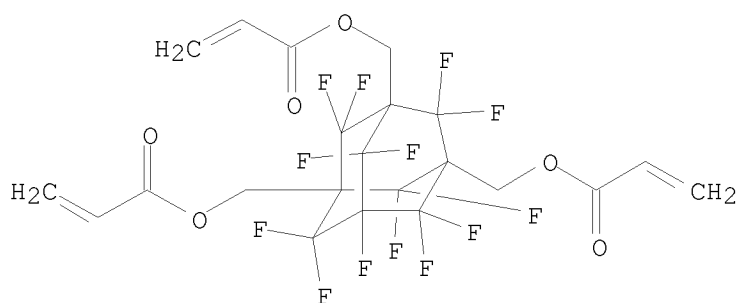
RN 955959-35-0 CAPLUS

CN 2-Propenoic acid, 1,1',1''-[(2,2,4,4,6,6,7,8,8,9,9,10,10-tridecafluorotricyclo[3.3.1.1<sup>3,7</sup>]decane-1,3,5-triyl)tris(methylene)] ester, homopolymer (CA INDEX NAME)

CM 1

CRN 955959-31-6

CMF C22 H15 F13 O6



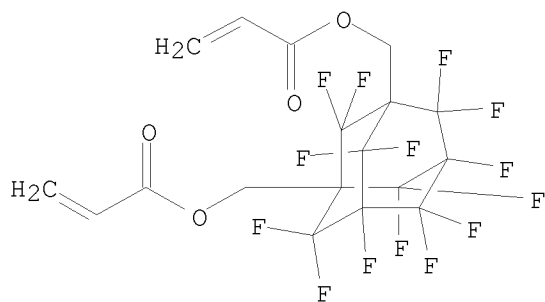
RN 955959-36-1 CAPLUS

CN 2-Propenoic acid, 1,1'-[(2,2,4,4,5,6,6,7,8,8,9,9,10,10-tetradecafluorotricyclo[3.3.1.1<sup>3,7</sup>]decane-1,3-diyl)bis(methylene)] ester, homopolymer (CA INDEX NAME)

CM 1

CRN 955959-26-9

CMF C18 H10 F14 O4



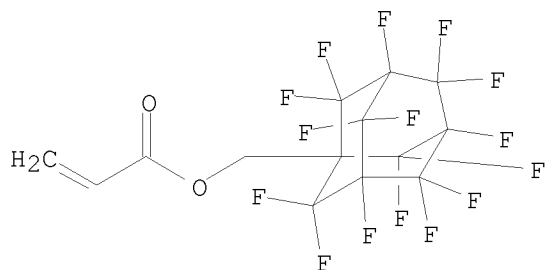
RN 955959-37-2 CAPLUS

CN 2-Propenoic acid, 1,1',1''-[(2,2,4,4,6,6,7,8,8,9,9,10,10-tridecafluorotricyclo[3.3.1.1<sup>3,7</sup>]decane-1,3,5-triyl)tris(methylene)] ester, homopolymer, polymer with (2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)methyl 2-propenoate (CA INDEX NAME)

CM 1

CRN 955959-32-7

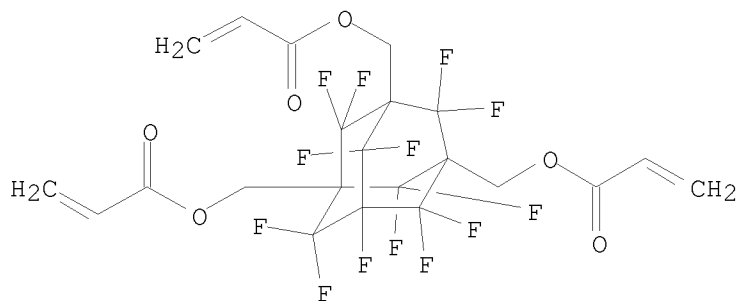
CMF C14 H5 F15 O2



CM 2

CRN 955959-31-6

CMF C22 H15 F13 O6



IT 933465-70-4P 955959-26-9P 955959-27-0P

955959-31-6P 955959-32-7P

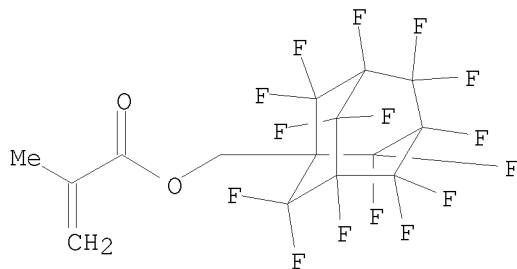
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(manufacture of fluorine-containing polymerizable adamantane compds. for resin

compns. useful for antireflection films)

RN 933465-70-4 CAPLUS

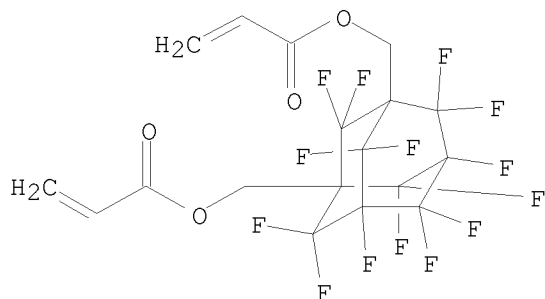
CN 2-Propenoic acid, 2-methyl-, (2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)methyl ester (CA INDEX NAME)



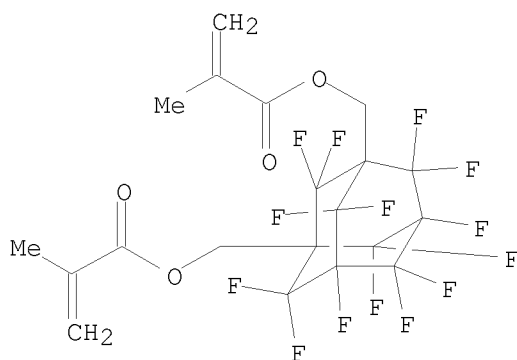
RN 955959-26-9 CAPLUS



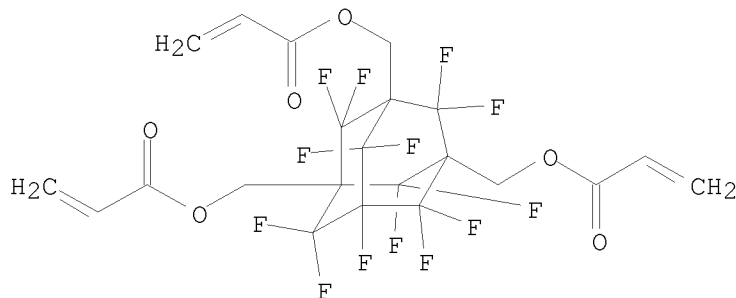
RN 2-Propenoic acid, 1,1'-[(2,2,4,4,5,6,6,7,8,8,9,9,10,10-  
 CN tetradecafluorotricyclo[3.3.1.1<sup>3,7</sup>]decane-1,3-diyl)bis(methylene)] ester  
 (CA INDEX NAME)



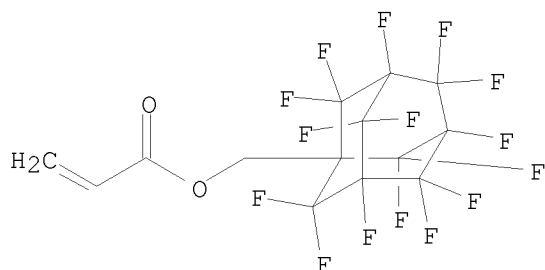
RN 955959-27-0 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 1,1'-[(2,2,4,4,5,6,6,7,8,8,9,9,10,10-  
 tetradecafluorotricyclo[3.3.1.1<sup>3,7</sup>]decane-1,3-diyl)bis(methylene)] ester  
 (CA INDEX NAME)



RN 955959-31-6 CAPLUS  
 CN 2-Propenoic acid, 1,1',1''-[(2,2,4,4,6,6,7,8,8,9,9,10,10-  
 tridecafluorotricyclo[3.3.1.1<sup>3,7</sup>]decane-1,3,5-triyl)tris(methylene)] ester  
 (CA INDEX NAME)



RN 955959-32-7 CAPLUS  
 CN 2-Propenoic acid, (2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-  
 pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)methyl ester (CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2007:1274072 CAPLUS  
 DOCUMENT NUMBER: 147:511313  
 TITLE: Optical waveguide having perfluoroadamantane structure  
 INVENTOR(S): Kitamura, Kyoji; Nakamura, Masaki; Okada, Yasunari  
 PATENT ASSIGNEE(S): Omron Corporation, Japan; Idemitsu Kosan Co., Ltd.  
 SOURCE: PCT Int. Appl., 44pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007126045	A1	20071108	WO 2007-JP59154	20070427
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: JP 2006-126541 A 20060428

AB Disclosed is an optical waveguide exhibiting excellent optical characteristics over the entire working temperature range, wherein the temperature dependence of refractive index difference between a core resin and a cladding resin is small. Specifically disclosed is an optical waveguide comprising a resin cured product containing a 1st F-containing monomer having a perfluoroadamantane structure. Consequently, there can be obtained an optical waveguide which is good in both optical characteristics and temperature dependence of refractive index difference between a core resin and a cladding resin.

IT 955010-53-4

RL: TEM (Technical or engineered material use); USES (Uses)  
 (C18H14F10O4 and optical waveguide having perfluoroadamantane structure)

RN 955010-53-4 CAPLUS

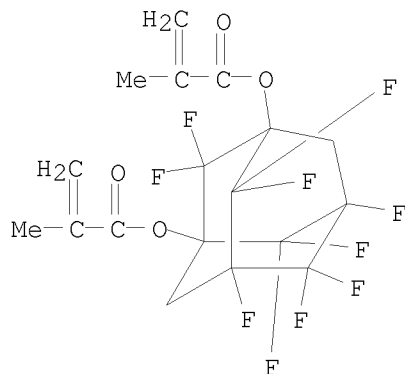
CN 2-Propenoic acid, 2-methyl-, 1,1'-(2,2,4,4,5,6,6,7,8,8-decafluorotricyclo[3.3.1.1<sup>3,7</sup>]decane-1,3-diyl) ester, polymer with 1,1'-(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-hexadecafluoro-1,10-decanediyl) di-2-propenoate and 1,2,2,3,3,4,4,5,5,6,6-undecafluorocyclohexyl

2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 955010-52-3

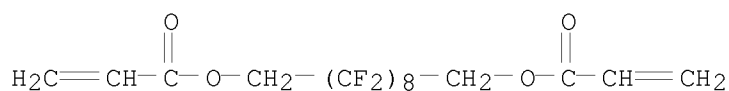
CMF C18 H14 F10 O4



CM 2

CRN 125635-55-4

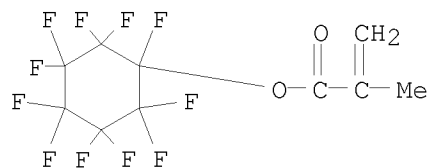
CMF C16 H10 F16 O4



CM 3

CRN 47249-88-7

CMF C10 H5 F11 O2



IT 955010-58-9

RL: TEM (Technical or engineered material use); USES (Uses)  
(optical waveguide having perfluoroadamantane structure)

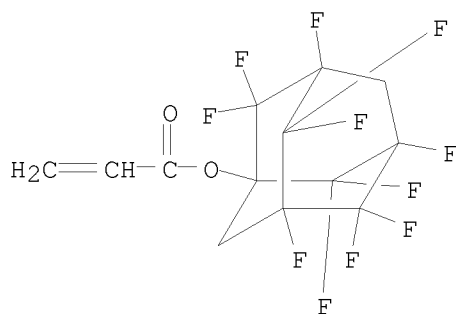
RN 955010-58-9 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,2,2,3,3,4,4,5,5,6,6-undecafluorocyclohexyl  
ester, polymer with 1,1'-(2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-hexadecafluoro-  
1,10-decanediyl) di-2-propenoate and  
2,2,3,4,4,5,6,6,7,8,8-undecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl  
2-propenoate (CA INDEX NAME)

CM 1

CRN 955010-57-8

CMF C13 H7 F11 O2



CM 2

CRN 125635-55-4

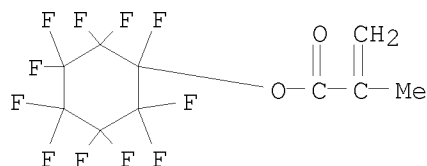
CMF C16 H10 F16 O4



CM 3

CRN 47249-88-7

CMF C10 H5 F11 O2



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 8 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1238732 CAPLUS

DOCUMENT NUMBER: 147:511610

TITLE: Materials of resist-protecting membranes for immersion lithography

INVENTOR(S): Takebe, Yoko; Wang, Shu-Zhong; Yokokoji, Osamu; Shirota, Naoko; Matsukawa, Yasuhisa; Shirakawa, Daisuke

PATENT ASSIGNEE(S): Asahi Glass Company, Limited, Japan

SOURCE: PCT Int. Appl., 73pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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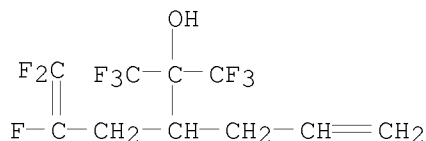


(CA INDEX NAME)

CM 1

CRN 795298-34-9

CMF C10 H9 F9 O



CM 2

CRN 558482-17-0

CMF C14 H5 F15 O2

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

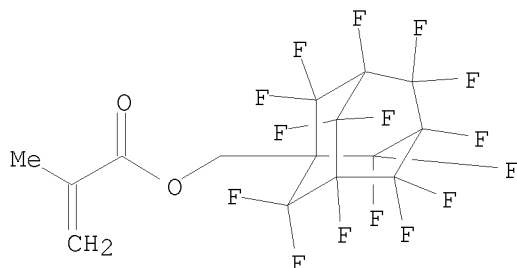
IT 933465-70-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of polymerizable compds. with F-containing bridged ring structures)

RN 933465-70-4 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1.3,7]dec-1-yl)methyl ester (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 9 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:1204084 CAPLUS

DOCUMENT NUMBER: 147:494026

TITLE: Resist composition for liquid immersion exposure

INVENTOR(S): Shirota, Naoko; Takebe, Yoko; Yokokoji, Osamu

PATENT ASSIGNEE(S): Asahi Glass Company, Limited, Japan

SOURCE: PCT Int. Appl., 47pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007119804	A1	20071025	WO 2007-JP58119	20070412

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA,  
 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB,  
 GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM,  
 KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK,  
 MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO,  
 RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT,  
 TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW  
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
 IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,  
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,  
 GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,  
 BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: JP 2006-110973 A 20060413  
 JP 2006-256839 A 20060922

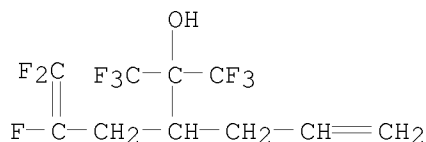
AB Disclosed is a resist composition for liquid immersion exposure. The resist composition comprises: a polymer (A) having a repeat unit formed by the cyclopolymer of a compound represented by the formula:  $\text{CF}_2=\text{CF}-\text{Q}-\text{CR}=\text{CH}_2$ , wherein the repeat unit is contained in an amount of 10 mol% or more relative to the total amount of all repeat units; and a polymer (B) whose alkali solubility can be increased by the action of an acid. In the formula above, R represents a hydrogen atom; and Q represents  $-\text{CF}_2\text{C}(\text{CF}_3)(\text{OH})\text{CH}_2-$ ,  $-\text{CH}_2\text{CH}(\text{C}(\text{CF}_3)_2(\text{OH}))\text{CH}_2-$ ,  $-\text{CH}_2\text{CH}(\text{C}(\text{O})\text{OH})\text{CH}_2-$ ,  $-\text{CF}_2\text{CH}(\text{C}(\text{O})\text{OH})\text{CH}_2-$ ,  $-\text{CF}_2\text{C}(\text{C}(\text{O})\text{OH})_2\text{CH}_2-$  or the like.

IT 954145-29-0P  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (resist composition for liquid immersion exposure)

RN 954145-29-0 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester, polymer with 1,1,1,5,6,6-hexafluoro-3-(2-propen-1-yl)-2-(trifluoromethyl)-5-hexen-2-ol (CA INDEX NAME)

CM 1

CRN 795298-34-9  
 CMF C10 H9 F9 O



CM 2

CRN 558482-17-0  
 CMF C14 H5 F15 O2

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 10 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2007:1204061 CAPLUS  
 DOCUMENT NUMBER: 147:494025  
 TITLE: Resist materials with good water repellency for immersion lithography  
 INVENTOR(S): Shiota, Naoko; Wang, Shu-Zhong; Yokokoji, Osamu; Takebe, Yoko; Matsukawa, Yasuhisa; Shirakawa, Daisuke

PATENT ASSIGNEE(S): Asahi Glass Company, Limited, Japan  
 SOURCE: PCT Int. Appl., 85pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2007119803	A1	20071025	WO 2007-JP58118	20070412
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
PRIORITY APPLN. INFO.:			JP 2006-110971	A 20060413
			JP 2006-132407	A 20060511
			JP 2006-176881	A 20060627
			JP 2006-207392	A 20060731
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

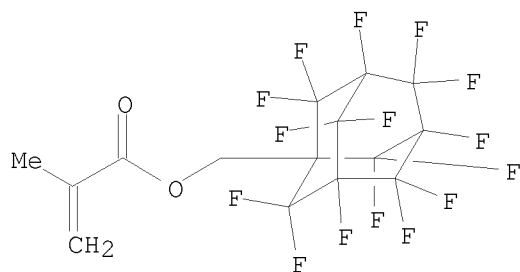
AB Title resist materials comprises polymers produced by polymerization of  $\geq 1$  polymerizable compound having a fluorine-containing bridged ring structure selected from I, II, III, and IV, wherein RF = H, F, C1-3 alkyl, or C1-3 fluoroalkyl and XF = F, OH, or CH<sub>2</sub>OH. Thus, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl methacrylate 4.8, 2-ethyltricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl methacrylate 12.0, tetrahydro-2-oxo-3-furanyl methacrylate 9.0, and 3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl methacrylate 2.5 g were polymerized at 40° for 48 h to give a copolymer with Mw 7200, 1 g of which was mixed with 0.05 g triphenylphosphonium triflate in 10 mL Me Et ether, applied on an antireflective coat-coated silicon substrate, immersion-patterned to give a test piece, showing good dynamic water repellency.

IT 933465-70-4P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (monomer; resist materials with good water repellency for immersion lithog.)

RN 933465-70-4 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)methyl ester (CA INDEX NAME)

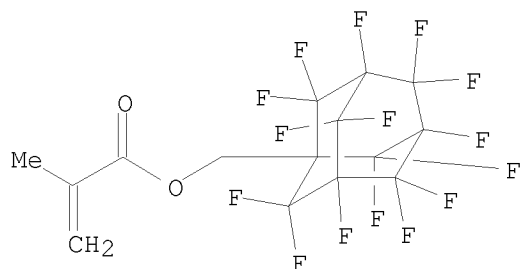




IT 705287-00-9P 935521-52-1P 953777-55-4P  
 953777-56-5P 953777-57-6P 953777-58-7P  
 953777-61-2P 953777-63-4P 953777-64-5P  
 953777-65-6P  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or  
 engineered material use); PREP (Preparation); USES (Uses)  
 (resist materials with good water repellency for immersion lithog.)  
 RN 705287-00-9 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-  
 pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester, homopolymer (CA INDEX  
 NAME)  
 CM 1  
 CRN 558482-17-0  
 CMF C14 H5 F15 O2

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 935521-52-1 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, (2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-  
 pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)methyl ester, homopolymer (CA  
 INDEX NAME)  
 CM 1  
 CRN 933465-70-4  
 CMF C15 H7 F15 O2



RN 953777-55-4 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl ester,  
 polymer with 3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl 2-methyl-2-propenoate,  
 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-  
 yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl  
 2-methyl-2-propenoate (CA INDEX NAME)  
 CM 1  
 CRN 558482-17-0

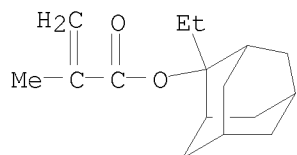
CMF C14 H5 F15 O2

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CRN 209982-56-9

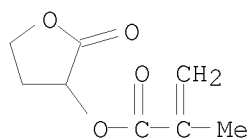
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CM 3

CRN 195000-66-9

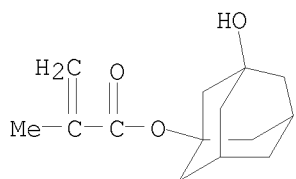
CMF C8 H10 O4



CM 4

CRN 115372-36-6

CMF C14 H20 O3



RN 953777-56-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl ester, polymer with 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 558482-17-0

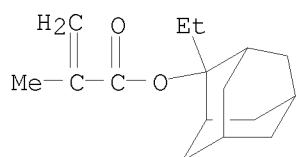
CMF C14 H5 F15 O2

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

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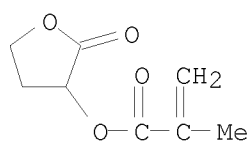
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CM 3

CRN 195000-66-9

CMF C8 H10 O4



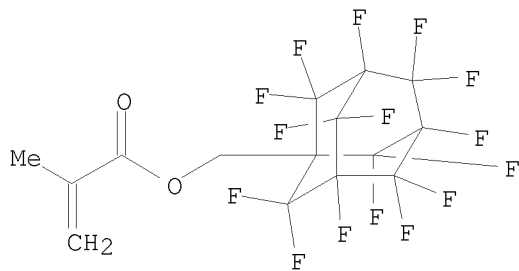
RN 953777-57-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 3-hydroxytricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate, (2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.13,7]dec-1-yl)methyl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 933465-70-4

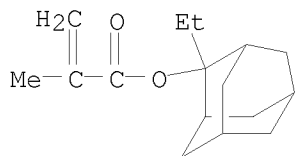
CMF C15 H7 F15 O2



CM 2

CRN 209982-56-9

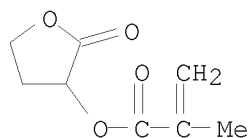
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CM 3

CRN 195000-66-9

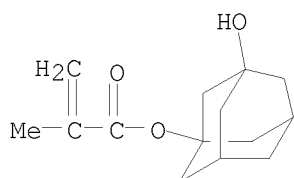
CMF C8 H10 O4



CM 4

CRN 115372-36-6

CMF C14 H20 O3



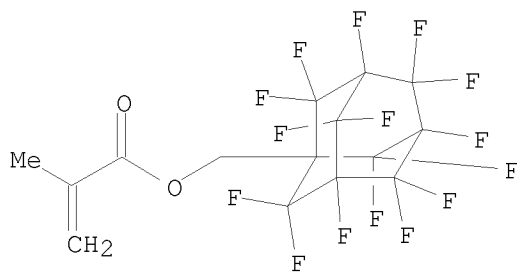
RN 953777-58-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with (2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.13,7]dec-1-yl)methyl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 933465-70-4

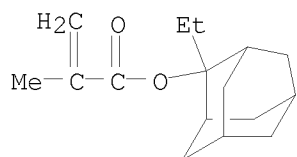
CMF C15 H7 F15 O2



CM 2

CRN 209982-56-9

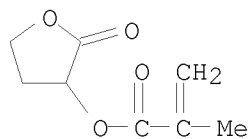
CMF C16 H24 O2



CM 3

CRN 195000-66-9

CMF C8 H10 O4



RN 953777-61-2 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl ester, polymer with 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 558482-17-0

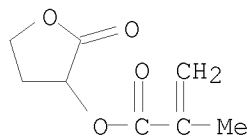
CMF C14 H5 F15 O2

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 195000-66-9

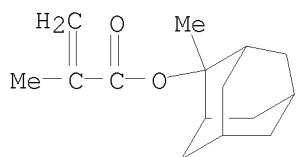
CMF C8 H10 O4



CM 3

CRN 177080-67-0

CMF C15 H22 O2



RN 953777-63-4 CAPLUS  
CN 2-Propenoic acid, 2-methyl-, 3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester,  
polymer with 2-methyltricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl 2-methyl-2-propenoate  
and 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-  
1-yl 2-methyl-2-propenoate (CA INDEX NAME)

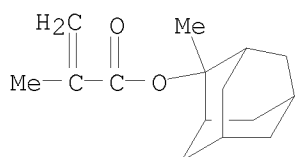
CM 1

CRN 558482-17-0  
CMF C14 H5 F15 O2

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

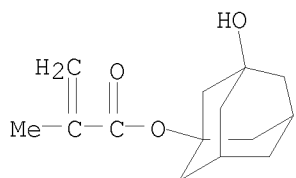
CM 2

CRN 177080-67-0  
CMF C15 H22 O2



CM 3

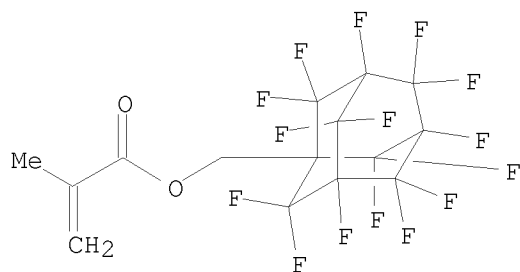
CRN 115372-36-6  
CMF C14 H20 O3



RN 953777-64-5 CAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl ester,  
polymer with (2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-  
pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)methyl 2-methyl-2-propenoate  
and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

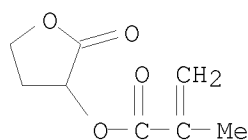
CRN 933465-70-4  
CMF C15 H7 F15 O2



CM 2

CRN 195000-66-9

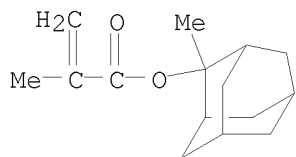
CMF C8 H10 O4



CM 3

CRN 177080-67-0

CMF C15 H22 O2



RN 953777-65-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.3<sup>0</sup>]dec-1-yl ester, polymer with tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate and tricyclo[3.3.1.3<sup>0</sup>]dec-1-yl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 558482-17-0

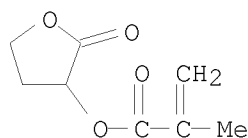
CMF C14 H5 F15 O2

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 195000-66-9

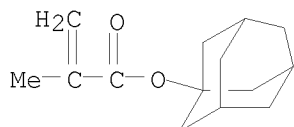
CMF C8 H10 O4



CM 3

CRN 16887-36-8

CMF C14 H20 O2



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 11 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2007:968110 CAPLUS  
 DOCUMENT NUMBER: 147:374517  
 TITLE: Chemically amplified positive photoresist composition  
 INVENTOR(S): Ando, Nobuo; Fuji, Yusuke; Takemoto, Kazuki  
 PATENT ASSIGNEE(S): Sumimoto Chemical Co., Ltd., Japan  
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 101pp.  
 CODEN: CNXXEV  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Chinese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 101021683	A	20070822	CN 2007-10079265	20070213
KR 2007082525	A	20070821	KR 2007-14551	20070212
US 20070218401	A1	20070920	US 2007-705138	20070212
JP 2007249192	A	20070927	JP 2007-34384	20070215
PRIORITY APPLN. INFO.:			JP 2006-37624	A 20060215

AB The title composition comprises F-free resin A which has unit (a1) labile to acid, and hydroxyl-containing unit (a3) and/or lactone-containing unit (a4); resin

B which has F-containing unit (b2), and at least one of unit (b2) labile to acid, hydroxyl-containing unit (b3), and lactone-containing unit (b4); and acid generator. The composition can be used in immersion lithog. process of semiconductor.

IT 949158-59-2P  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (chemical amplified pos. photoresist composition)

RN 949158-59-2 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-ethylcyclopentyl ester, polymer with 2-ethyltricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl 2-methyl-2-propenoate, 2-[(hexahydro-2-oxo-3,5-methano-2H-cyclopenta[b]furan-6-yl)oxy]-2-oxoethyl 2-methyl-2-propenoate, 3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl 2-methyl-2-propenoate and 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl 2-methyl-2-propenoate (CA INDEX NAME)



CM 1

CRN 558482-17-0

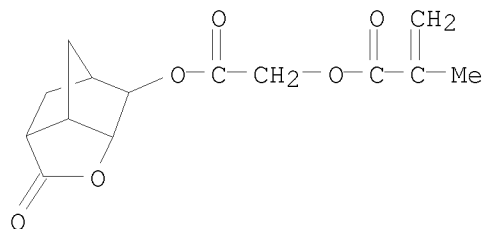
CMF C14 H5 F15 O2

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CRN 347886-81-1

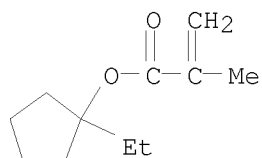
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CM 3

CRN 266308-58-1

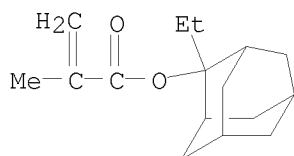
CMF C11 H18 O2



CM 4

CRN 209982-56-9

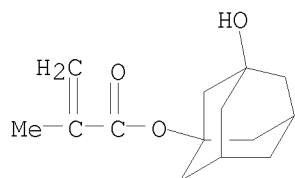
CMF C16 H24 O2



CM 5

CRN 115372-36-6

CMF C14 H20 O3



L9 ANSWER 12 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:485085 CAPLUS

DOCUMENT NUMBER: 146:462653

TITLE: Fluoroadamantane derivatives for fluorine-containing polymers with good water and oil resistance

INVENTOR(S): Wang, Shu-Zhong; Murata, Koichi; Oharu, Kazuya; Morizawa, Yoshitomi; Yokokoji, Osamu; Shiota, Naoko

PATENT ASSIGNEE(S): Asahi Glass Company, Limited, Japan

SOURCE: PCT Int. Appl., 34pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

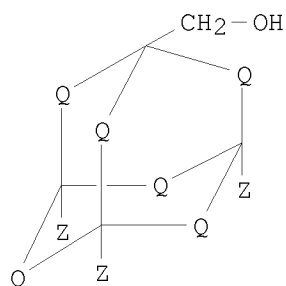
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

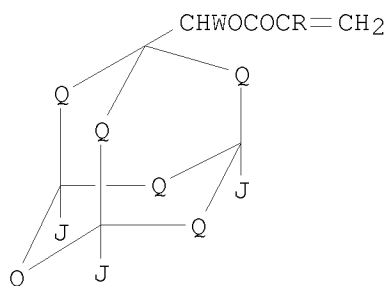
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WO 2007049657	A1	20070503	WO 2006-JP321298	20061025
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JP 2007254451	A	20071004	JP 2006-132408	20060511
EP 1942091	A1	20080709	EP 2006-822275	20061025
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
KR 2008063351	A	20080703	KR 2008-709637	20080422
CN 101296890	A	20081029	CN 2006-80040042	20080425
PRIORITY APPLN. INFO.:			JP 2005-314801	A 20051028
			JP 2006-45299	A 20060222
			WO 2006-JP321298	W 20061025

OTHER SOURCE(S): MARPAT 146:462653

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I



II

AB The present invention relates to fluoroadamantane derivs. I and II, wherein Q = CHF or CF<sub>2</sub>; Z = H, F, or CH<sub>2</sub>OH; W = H or C1-10 hydrocarbon; R = H, F, CH<sub>3</sub> or CF<sub>3</sub>; J = H, F, CHOH or CHWOCOCR:CH<sub>2</sub>; and W = H or C1-10 monovalent hydrocarbon. Thus, 27.46 g 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluoro-tricyclo[3.3.1.1<sup>3,7</sup>]decane-1-carbonyl fluoride and 3.78 g sodium fluoride were reacted, and further reacted with formalin to give 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluoro-tricyclo[3.3.1.1<sup>3,7</sup>]decane-1-methanol, 6.01 g of which was reacted with 1.58 g methacryloyl chloride, the resulting fluoroadamantylmethyl methacrylate was copolymd. with 2-ethyl-2-adamantyl acrylate and 2-oxotetrahydrofuran-3-yl methacrylate to give a copolymer with Mn 3800 and water contact angle 93.3° and water drop angle 12°.

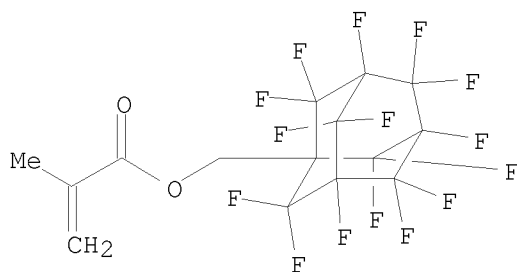
IT 933465-70-4P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(monomer; preparation of fluoroadamantane derivs. for fluorine-containing polymers with good water and oil resistance)

RN 933465-70-4 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)methyl ester (CA INDEX NAME)



IT 935521-52-1P 935521-53-2P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of fluoroadamantane derivs. for fluorine-containing polymers

with

good water and oil resistance)

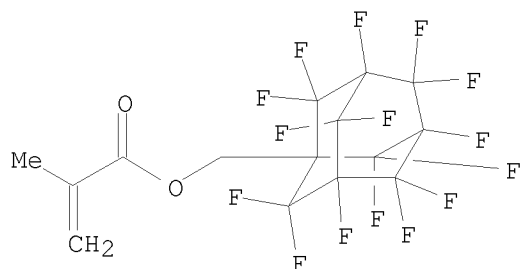
RN 935521-52-1 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)methyl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 933465-70-4

CMF C15 H7 F15 O2



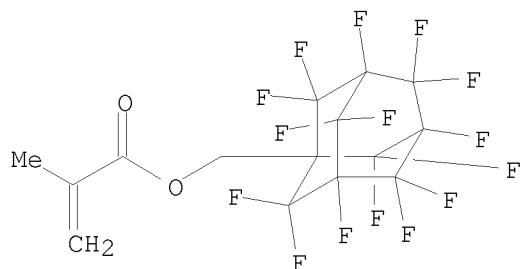
RN 935521-53-2 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.3,7]dec-1-yl)methyl ester, polymer with 2-ethyltricyclo[3.3.1.3,7]dec-2-yl 2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (CA INDEX NAME)

CM 1

CRN 933465-70-4

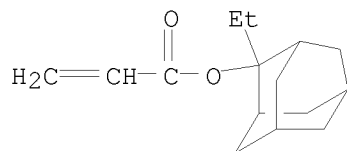
CMF C15 H7 F15 O2



CM 2

CRN 303186-14-3

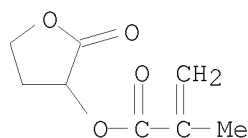
CMF C15 H22 O2



CM 3

CRN 195000-66-9

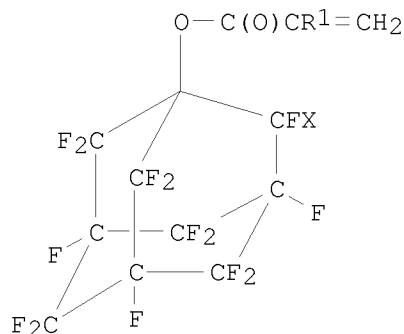
CMF C8 H10 O4



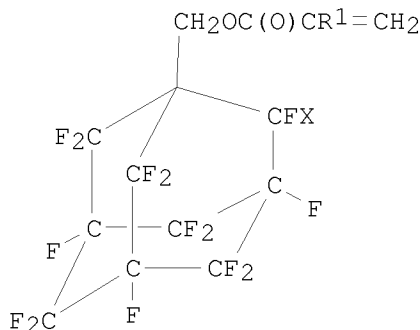
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 13 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2007:379849 CAPLUS  
 DOCUMENT NUMBER: 146:411510  
 TITLE: Composition for resist protective film having PED effect suppression  
 INVENTOR(S): Shiota, Naoko; Takebe, Yoko; Sasaki, Takashi; Yokokoji, Osamu; Wang, Shu Zhong  
 PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 20pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007086731	A	20070405	JP 2006-116734	20060420
PRIORITY APPLN. INFO.: GI			JP 2005-242845	A 20050824



I



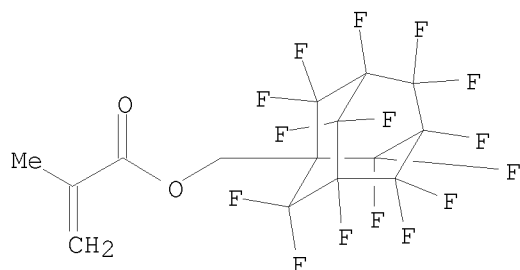
II

AB Disclosed is a composition comprising (a) a fluororesin having a C-H bond but acidic and basic functional groups and (b) a fluororesin having a C-H bond. Said fluororesin (a) has a repeating unit I or II (R1 = H, CH3, F, CF3; and X = H, F). The composition exhibited high transparency and nonsensitivity over wide wavelengths.

IT 933465-70-4P  
 RL: IMF (Industrial manufacture); PRP (Properties); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (Composition for resist protective film having PED effect suppression)

RN 933465-70-4 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)methyl ester (CA INDEX NAME)



IT 705287-00-9P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (Composition for resist protective film having PED effect suppression)  
 RN 705287-00-9 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.13,7]dec-1-yl ester, homopolymer (CA INDEX NAME)  
 CM 1  
 CRN 558482-17-0  
 CMF C14 H5 F15 O2

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L9 ANSWER 14 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:253583 CAPLUS

DOCUMENT NUMBER: 146:305051

TITLE: Water-repellent resist-protective films with good photoin sensitivity over wide wavelength range

INVENTOR(S): Shirota, Naoko; Takebe, Yoko; Sasaki, Takashi; Yokokoji, Osamu

PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2007056134	A	20070308	JP 2005-242844	20050824
PRIORITY APPLN. INFO.:			JP 2005-242844	20050824

AB The films, suppressing post-exposure delay of photoresists and having high transparency to VUV and far UV, contain fluoropolymers prepared from monomers containing fluoroalicyclic (e.g., fluoroadamantane) rings connecting OH groups at bridge head atoms. The films are especially useful for immersion lithog.

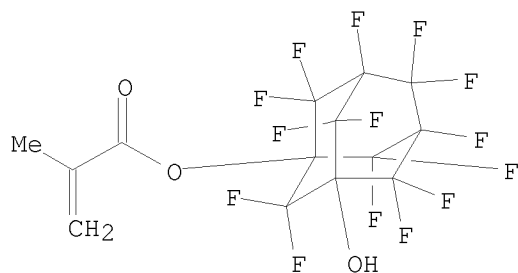
IT 928027-14-9P 928027-17-2P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (water-repellent resist-protective films containing fluoroalicyclic polymers with hydroxy substituent at bridge head position)

RN 928027-14-9 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2,2,3,4,4,5,6,6,8,8,9,9,10,10-tetradecafluoro-7-hydroxytricyclo[3.3.1.13,7]dec-1-yl ester, homopolymer (CA INDEX NAME)

CM 1

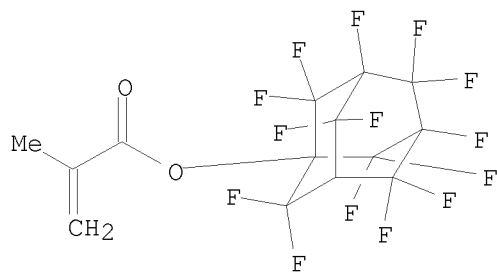
CRN 849065-98-1  
CMF C14 H6 F14 O3



RN 928027-17-2 CAPLUS  
CN 2-Propenoic acid, 2-methyl-, 2,2,3,4,4,5,6,6,8,8,9,9,10,10-tetradecafluoro-7-hydroxytricyclo[3.3.1.13,7]dec-1-yl ester, polymer with 2,2,3,4,4,5,6,6,8,8,9,9,10,10-tetradecafluorotricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate (CA INDEX NAME)

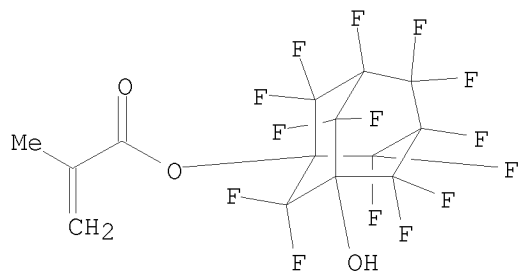
CM 1

CRN 928027-16-1  
CMF C14 H6 F14 O2



CM 2

CRN 849065-98-1  
CMF C14 H6 F14 O3



L9 ANSWER 15 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2007:119252 CAPLUS  
DOCUMENT NUMBER: 146:172291

TITLE: Resist protective coating material and patterning process

INVENTOR(S): Hatakeyama, Jun; Harada, Yuji; Kawai, Yoshio; Endo, Masayuki; Sasago, Masaru; Komoriya, Haruhiko; Ootani, Michitaka; Miyazawa, Satoru; Maeda, Kazuhiko

PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Japan; Matsushita Electric Industrial Co., Ltd.; Central Glass Co., Ltd.

SOURCE: U.S. Pat. Appl. Publ., 19pp.  
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20070026341	A1	20070201	US 2006-492957	20060726
JP 2007058187	A	20070308	JP 2006-197612	20060720
KR 2007014090	A	20070131	KR 2006-70565	20060727

PRIORITY APPLN. INFO.: JP 2005-216832 A 20050727

AB A resist protective coating material is provided comprising an  $\alpha$ -trifluoromethylacrylic acid/norbornene copolymer having cyclic perfluoroalkyl groups as pendant. In a pattern-forming process, the material forms on a resist film a protective coating which is water-insol., dissolvable in alkaline developer and immiscible with the resist film, allowing for effective implementation of immersion lithog.

IT 920529-97-1P 920530-07-0P  
RL: POF (Polymer in formulation); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(resist protective coating material and patterning process in immersion lithog.)

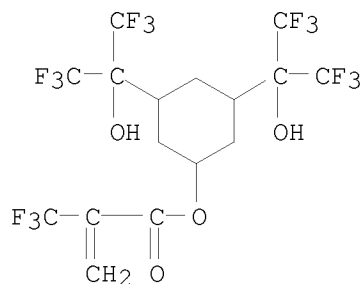
RN 920529-97-1 CAPLUS

CN 2-Propenoic acid, 2-(trifluoromethyl)-, 3,5-bis[2,2,2-trifluoro-1-hydroxy-1-(trifluoromethyl)ethyl]cyclohexyl ester, polymer with  $\alpha,\alpha$ -bis(trifluoromethyl)bicyclo[2.2.1]hept-5-ene-2-ethanol and 1,1,2,2,3,3,3a,7a-octafluorooctahydro-4,7-methano-1H-inden-5-yl 2-(trifluoromethyl)-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 585569-92-2

CMF C16 H13 F15 O4

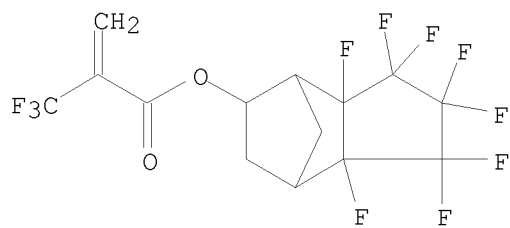


CM 2

CRN 478363-29-0

CMF C14 H9 F11 O2

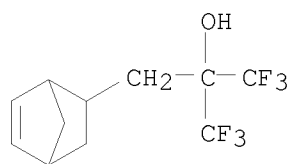




CM 3

CRN 196314-61-1

CMF C11 H12 F6 O



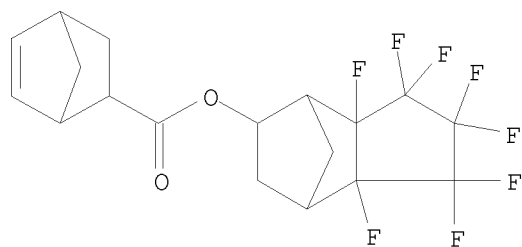
RN 920530-07-0 CAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid,  
1,1,2,2,3,3,3a,7a-octafluorooctahydro-4,7-methano-1H-inden-5-yl ester,  
polymer with 1,1,2,2,3,3,3a,7a-octafluorooctahydro-4,7-methano-1H-inden-5-  
yl 2-(trifluoromethyl)-2-propenoate (CA INDEX NAME)

CM 1

CRN 920529-98-2

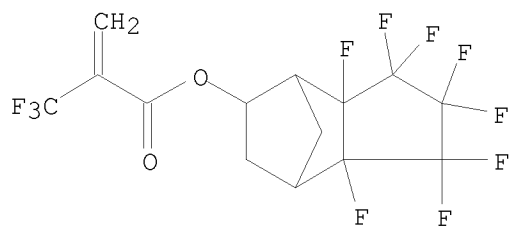
CMF C18 H16 F8 O2



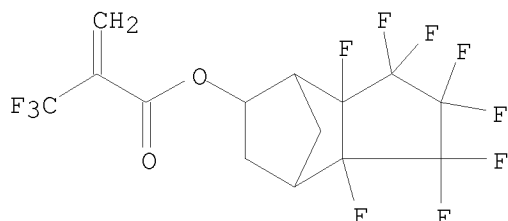
CM 2

CRN 478363-29-0

CMF C14 H9 F11 O2



IT 478363-29-0  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (resist protective coating material and patterning process in immersion lithog.)  
 RN 478363-29-0 CAPLUS  
 CN 2-Propenoic acid, 2-(trifluoromethyl)-,  
 1,1,2,2,3,3,3a,7a-octafluorooctahydro-4,7-methano-1H-inden-5-yl ester (CA INDEX NAME)



L9 ANSWER 16 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2007:61668 CAPLUS  
 DOCUMENT NUMBER: 146:122593  
 TITLE: Tribromoneopentyl (meth)acrylate based copolymers and lenses made therefrom  
 INVENTOR(S): Daren, Steve; Weiss, Amos  
 PATENT ASSIGNEE(S): H.P.O.P - High Performance Optical Polymers Ltd., Israel  
 SOURCE: PCT Int. Appl., 23pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

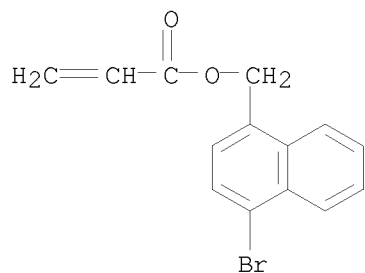
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007007332	A1	20070118	WO 2006-IL806	20060712
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: IL 2005-169652 A 20050712

AB Disclosed is a polymerizable mixture, comprising: one or more monomers selected from the group consisting of tribromoneopentyl acrylate and tribromoneopentyl methacrylate; and one or more brominated aromatic monomers; and one or more multi-functional acrylate compds.; and a thermally-activated free radical initiator. The polymerization product thus obtained is also provided.

IT 918797-78-1P  
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
 (tribromoneopentyl (meth)acrylate based copolymers and lenses made therefrom)

RN 918797-78-1 CAPLUS  
 CN 2-Propenoic acid, (4-bromo-1-naphthalenyl)methyl ester (CA INDEX NAME)

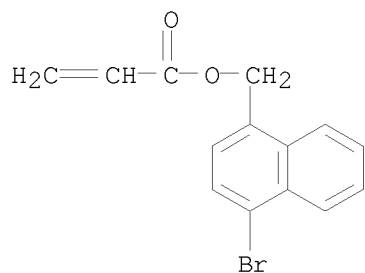


IT 918797-79-2P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (tribromoneopentyl (meth)acrylate based copolymers and lenses made therefrom)

RN 918797-79-2 CAPLUS  
 CN 2-Propenoic acid, 1,1'-[(1-methylethylidene)bis(4,1-phenyleneoxy-2,1-ethanediyl)] ester, polymer with 3-bromo-2,2-bis(bromomethyl)propyl 2-propenoate, (4-bromo-1-naphthalenyl)methyl 2-propenoate, diethenylbenzene, (2,3,4,5,6-pentabromophenyl)methyl 2-propenoate and phenylmethyl 2-propenoate (CA INDEX NAME)

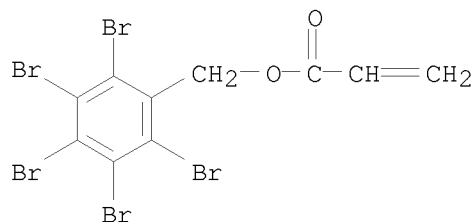
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CM 2

CRN 59447-55-1  
 CMF C10 H5 Br5 O2

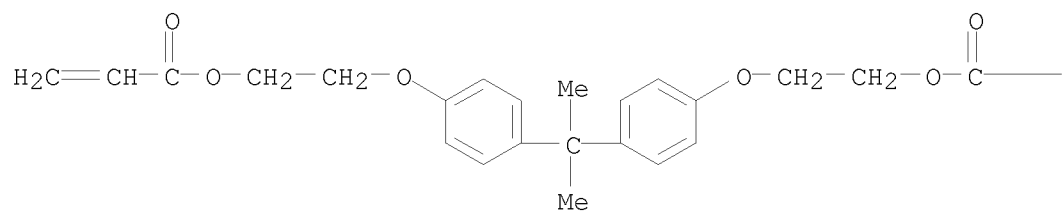


CM 3

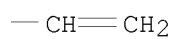
CRN 24447-78-7

CMF C25 H28 O6

PAGE 1-A



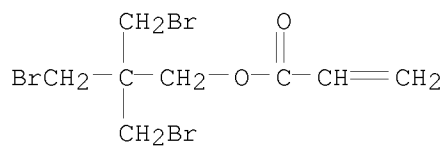
PAGE 1-B



CM 4

CRN 3217-37-6

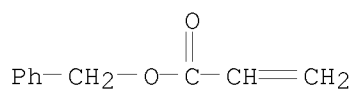
CMF C8 H11 Br3 O2



CM 5

CRN 2495-35-4

CMF C10 H10 O2

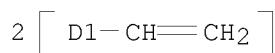


CM 6

CRN 1321-74-0

CMF C10 H10

CCI IDS



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 17 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:1124676 CAPLUS

DOCUMENT NUMBER: 145:462926

TITLE: Polymerizable liquid crystal composition, optical anisotropic material, optical element, and optical head device

INVENTOR(S): Yoshida, Kara; Gunjima, Tomoki; Takeshita, Nobuhiko; Tanabe, Yuzuru; Hotaka, Hiroki; Sato, Hiromasa

PATENT ASSIGNEE(S): Asahi Glass Company, Limited, Japan

SOURCE: PCT Int. Appl., 56pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006112338	A1	20061026	WO 2006-JP307779	20060412
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1873228	A1	20080102	EP 2006-731715	20060412
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
KR 2007119007	A	20071218	KR 2007-718608	20070814
CN 101155897	A	20080402	CN 2006-80011721	20071011
US 20080048149	A1	20080228	US 2007-872267	20071015
PRIORITY APPLN. INFO.:			JP 2005-115886	A 20050413
			JP 2005-362891	A 20051216
			WO 2006-JP307779	W 20060412

AB This invention provides a phase plate suitable for use in a broadband, an optical element such as a polarizing diffractive element having an excellent diffraction efficiency, a polymerizable liquid crystal composition for use in them, and an optical head device using them. A polymerizable liquid crystal composition comprises a polymerizable compound having a mesogen structure comprising the following six-membered ring group (B) attached to at least one bonding hand in the following condensed benzene ring group (A) either directly or through a linking group of -OCO- or -COO-, and a monovalent

end group attached to each of both ends in the mesogen structure, at least one of the end groups being a monovalent organic group having a polymerizable site. Condensed benzene ring group (A) is a naphthalenediyl group having a bonding hand at the 1-position, 4-position, or 5-position, or an anthracenediyl group having a bonding hand at the 1-position or 9-position and the 4-position, 5-position, or 10-position. Six-membered ring group (B) is a divalent group to which a 1,4-phenylene group, a trans-1,4-cyclohexylene group, or two or more groups selected from these groups are attached either directly or through a linking group.

IT 913291-55-1P 913291-56-2P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polymerizable liquid crystal composition for optical anisotropic material

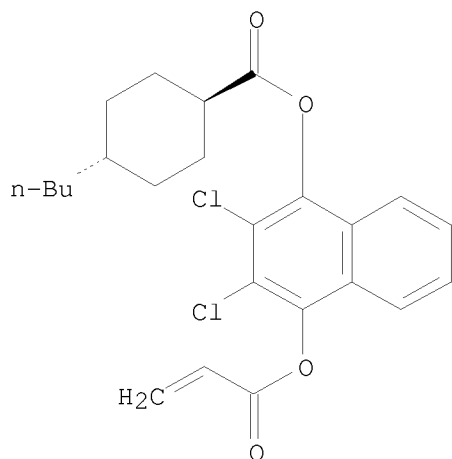
and

optical device)

RN 913291-55-1 CAPLUS

CN Cyclohexanecarboxylic acid, 4-butyl-,  
2,3-dichloro-4-[(1-oxo-2-propen-1-yl)oxy]-1-naphthalenyl ester, trans-  
(CA INDEX NAME)

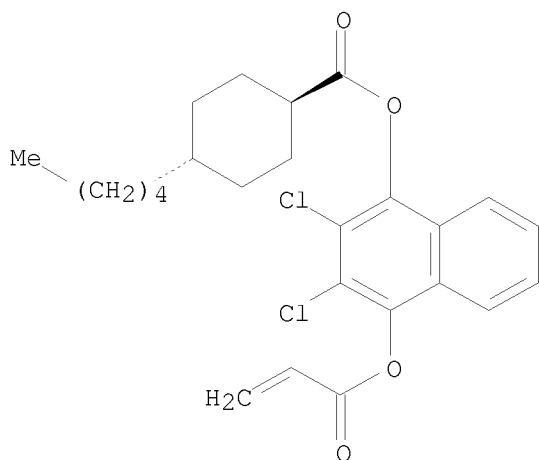
Relative stereochemistry.



RN 913291-56-2 CAPLUS

CN Cyclohexanecarboxylic acid, 4-pentyl-,  
2,3-dichloro-4-[(1-oxo-2-propen-1-yl)oxy]-1-naphthalenyl ester, trans-  
(CA INDEX NAME)

Relative stereochemistry.

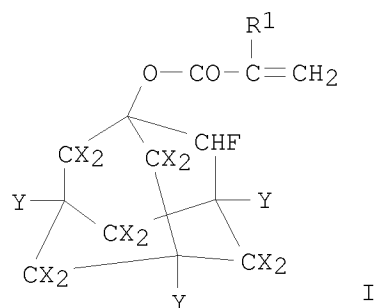


REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 18 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2006:485754 CAPLUS  
DOCUMENT NUMBER: 144:477829  
TITLE: Fluorine-containing polymers, their preparation, and resist compositions therewith  
INVENTOR(S): Yokokoji, Osamu; Sasaki, Takashi; Wang, Shu Zhong  
PATENT ASSIGNEE(S): Asahi Glass Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006131879	A	20060525	JP 2005-208683	20050719
PRIORITY APPLN. INFO.:			JP 2004-291376	A 20041004

GI



AB The polymers are prepared from I (R<sub>1</sub> = H, Me, F, CF<sub>3</sub>; Y = H, F, OH; X = H, F) and CH<sub>2</sub>:CR<sub>2</sub>CO<sub>2</sub>R<sub>3</sub> [R<sub>2</sub> = H, F, C<sub>≤</sub>3 (fluoro)alkyl; R<sub>3</sub> = C<sub>≤</sub>20 monovalent organic group]. The photoresists contain the polymers, photoacid generators, and organic solvents.

IT 558482-16-9P 558482-17-0P 849065-98-1P  
872205-43-1P 886845-89-2P 886845-90-5P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(fluoropolymers with high concentration of functional groups for resists transparent to lights over wide wavelength range)

RN 558482-16-9 CAPLUS

CN 2-Propenoic acid, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

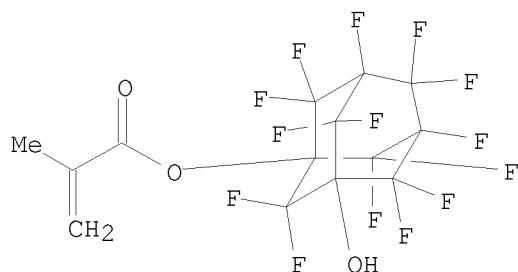
RN 558482-17-0 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)

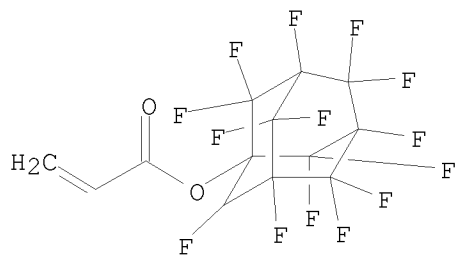
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 849065-98-1 CAPLUS

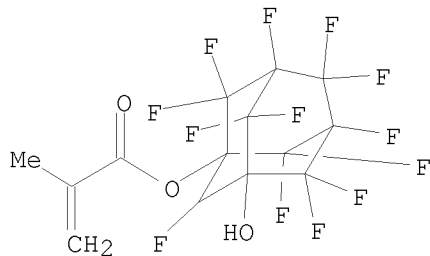
CN 2-Propenoic acid, 2-methyl-, 2,2,4,4,5,6,6,7,8,8,9,9,10,10-tetradecafluoro-3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)



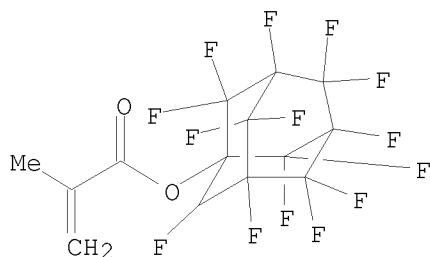
RN 872205-43-1 CAPLUS  
 CN 2-Propenoic acid, 2,2,3,4,4,5,6,6,7,8,8,9,10,10-tetradecafluorotricyclo[3.3.1.3<sup>0,2,7</sup>]dec-1-yl ester (CA INDEX NAME)



RN 886845-89-2 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2,2,3,4,4,6,6,7,8,8,9,10,10-tridecafluoro-5-hydroxytricyclo[3.3.1.3<sup>0,2,7</sup>]dec-1-yl ester (CA INDEX NAME)



RN 886845-90-5 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2,2,3,4,4,5,6,6,7,8,8,9,10,10-tetradecafluorotricyclo[3.3.1.3<sup>0,2,7</sup>]dec-1-yl ester (CA INDEX NAME)



IT 886845-83-6P 886845-84-7P 886845-91-6P  
 886845-92-7P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material)



use); PREP (Preparation); USES (Uses)

(fluoropolymers with high concentration of functional groups for resists transparent to lights over wide wavelength range)

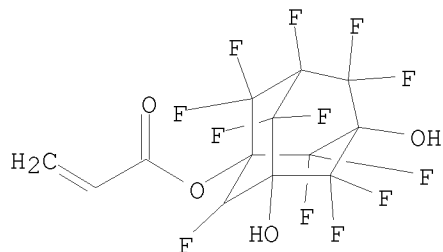
RN 886845-83-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with 2,2,3,4,4,6,6,8,8,9,10,10-dodecafluoro-5,7-dihydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl 2-propenoate and 2,2,3,4,4,6,6,8,8,9,9,10,10-tridecafluoro-5,7-dihydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 872205-54-4

CMF C13 H6 F12 O4



CM 2

CRN 872205-53-3

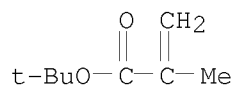
CMF C13 H5 F13 O4

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3

CRN 585-07-9

CMF C8 H14 O2



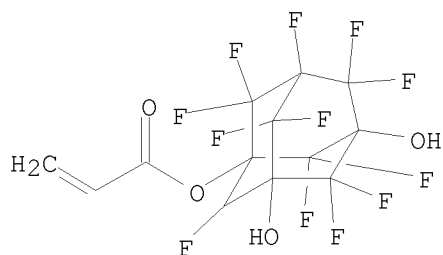
RN 886845-84-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyltricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl ester, polymer with 2,2,3,4,4,6,6,8,8,9,10,10-dodecafluoro-5,7-dihydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl 2-propenoate and 2,2,3,4,4,6,6,8,8,9,9,10,10-tridecafluoro-5,7-dihydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 872205-54-4

CMF C13 H6 F12 O4



CM 2

CRN 872205-53-3

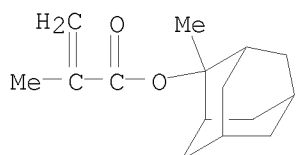
CMF C13 H5 F13 O4

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 3

CRN 177080-67-0

CMF C15 H22 O2



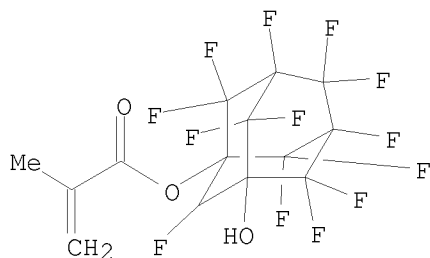
RN 886845-91-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 2,2,3,4,4,5,6,6,8,8,9,9,10,10-tetradecafluoro-7-hydroxytricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate and 2,2,3,4,4,6,6,7,8,8,9,10,10-tridecafluoro-5-hydroxytricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 886845-89-2

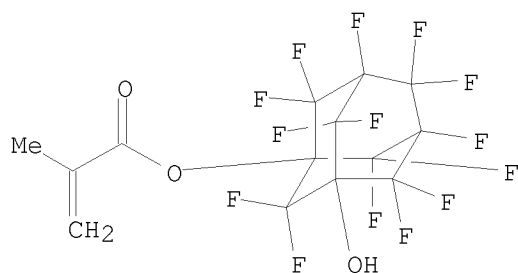
CMF C14 H7 F13 O3



CM 2

CRN 849065-98-1

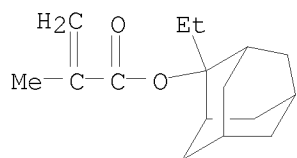
CMF C14 H6 F14 O3



CM 3

CRN 209982-56-9

CMF C16 H24 O2



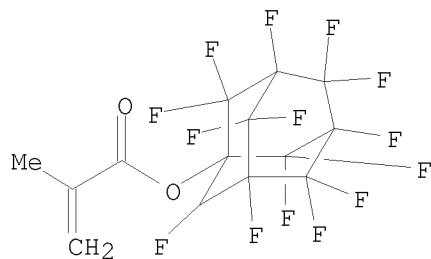
RN 886845-92-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate, 2,2,3,4,4,5,6,6,7,8,8,9,10,10-tetradecafluorotricyclo[3.3.1.13,7]dec-1-yl 2-methyl-2-propenoate and tetrahydro-5-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 886845-90-5

CMF C14 H6 F14 O2



CM 2

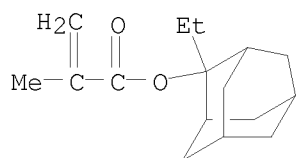
CRN 558482-17-0

CMF C14 H5 F15 O2

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

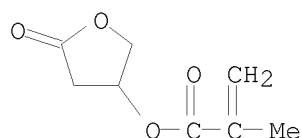
CM 3

CRN 209982-56-9  
CMF C16 H24 O2



CM 4

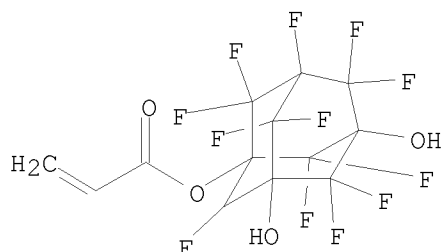
CRN 130224-95-2  
CMF C8 H10 O4



IT 872205-53-3P 872205-54-4P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(monomers; fluoropolymers with high concentration of functional groups for resists transparent to lights over wide wavelength range)  
RN 872205-53-3 CAPLUS  
CN 2-Propenoic acid, 2,2,3,4,4,6,6,8,8,9,9,10,10-tridecafluoro-3,7-dihydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 872205-54-4 CAPLUS  
CN 2-Propenoic acid, 2,2,4,4,6,6,7,8,8,9,10,10-dodecafluoro-3,5-dihydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)



L9 ANSWER 19 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2005:1354545 CAPLUS  
DOCUMENT NUMBER: 144:87970  
TITLE: Synthesis of fluorinated adamantane and its derivatives  
INVENTOR(S): Okazoe, Takashi; Watanabe, Kunio; Ito, Masahiro; Murotani, Eisuke; Oharu, Kazuya; Wang, Shu-Zhong; Hoshino, Taiki; Kashiwagi, Kimiaki  
PATENT ASSIGNEE(S): Asahi Glass Company Limited, Japan  
SOURCE: U.S. Pat. Appl. Publ., 17 pp., Cont.-in-part of U.S.

Ser. No. 143,978.

CODEN: USXXCO

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050288528	A1	20051229	US 2005-153438	20050616
WO 2004052832	A1	20040624	WO 2003-JP15879	20031211
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 20050277785	A1	20051215	US 2005-143978	20050603
US 7314952	B2	20080101		
WO 2005123650	A1	20051229	WO 2005-JP10374	20050606
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
WO 2005123653	A1	20051229	WO 2005-JP10979	20050615
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1757575	A1	20070228	EP 2005-751237	20050615
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR			
US 20070129566	A1	20070607	US 2006-567391	20061206
US 7402714	B2	20080722		
US 20070083064	A1	20070412	US 2006-611183	20061215
US 7425646	B2	20080916		
US 20080132736	A1	20080605	US 2008-20863	20080128
PRIORITY APPLN. INFO.:			JP 2002-359471	A 20021211
			WO 2003-JP15879	A1 20031211
			JP 2004-178330	A 20040616
			JP 2004-178331	A 20040616
			US 2005-143978	A2 20050603
			WO 2005-JP10374	A1 20050606

OTHER SOURCE(S): CASREACT 144:87970; MARPAT 144:87970

AB A process A1 for producing a perfluorinated adamantane compound Af(-COF)<sub>n</sub> (5A), comprises fluorinating a adamantane compound A(-CH<sub>2</sub>-OCO-R)<sub>n</sub> (3A-1) by liquid phase fluorination to a fluorinated compound Af(-CH<sub>2</sub>-OCO-Rf)<sub>n</sub> (4A-1), followed by a decomposition reaction of an ester bond;. A process A2 for producing (5A), comprises fluorinating a compound A(-COOR)<sub>n</sub> (3A-2) by liquid phase fluorination to a compound Af(-COORf)<sub>n</sub> (4A-2), followed by a decomposition

reaction of an ester bond;. A process B for producing a compound Af(-OH)<sub>n</sub> (5B), which comprises fluorinating a compound A(-OCO-R)<sub>n</sub> (3B) by liquid phase fluorination to a compound Af(-OCO-Rf)<sub>n</sub> (4B), followed by hydrolysis or alcoholysis. For the above compds., n is 2 to 4 for compound (5A), n is 3 or 4 for compound (5B), provided that A is a n-valent group having n hydrogen atoms in adamantane converted to connecting bonds, R is a fluorinated monovalent organic group, n: an integer of from 1 to 4, Af is a group having at least one of hydrogen atoms in the group A substituted by a fluorine atom, Rf is a fluorinated monovalent organic group.

IT 558482-16-9P 558482-23-8P 872205-43-1P

872205-45-3P 872205-51-1P 872205-52-2P

872205-53-3P 872205-54-4P 872205-55-5P

872205-56-6P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(synthesis of fluorinated adamantane and its derivs.)

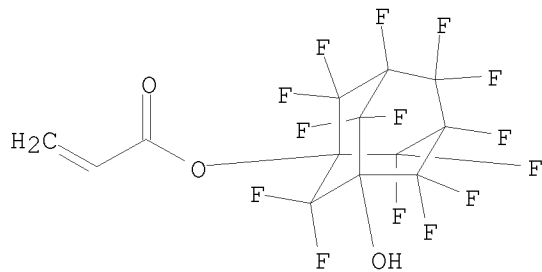
RN 558482-16-9 CAPLUS

CN 2-Propenoic acid, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-  
pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

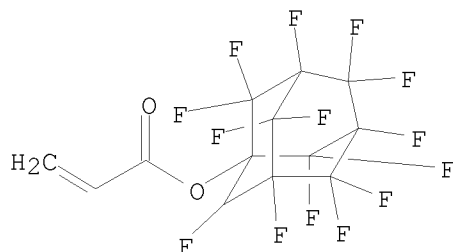
RN 558482-23-8 CAPLUS

CN 2-Propenoic acid, 2,2,3,4,4,5,6,6,8,8,9,9,10,10-tetradecafluoro-7-  
hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)

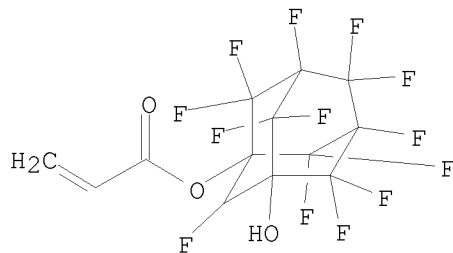


RN 872205-43-1 CAPLUS

CN 2-Propenoic acid, 2,2,3,4,4,5,6,6,7,8,8,9,10,10-  
tetradecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)



RN 872205-45-3 CAPLUS  
 CN 2-Propenoic acid, 2,2,3,4,4,6,6,7,8,8,9,10,10-tridecafluoro-5-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)



RN 872205-51-1 CAPLUS  
 CN 2-Propenoic acid, 2,2,4,4,6,6,7,8,8,9,9,10,10-tridecafluorotricyclo[3.3.1.1<sup>3,7</sup>]decane-1,3,5-triyl ester (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

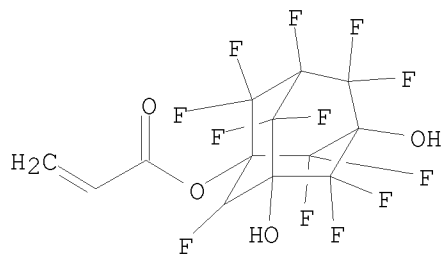
RN 872205-52-2 CAPLUS  
 CN 2-Propenoic acid, 2,2,4,4,6,6,7,8,8,9,10,10-dodecafluorotricyclo[3.3.1.1<sup>3,7</sup>]decane-1,3,5-triyl ester (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

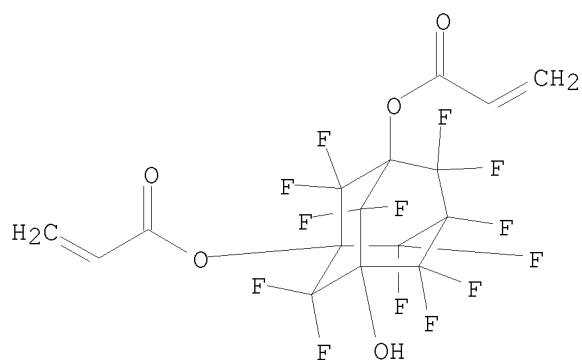
RN 872205-53-3 CAPLUS  
 CN 2-Propenoic acid, 2,2,3,4,4,6,6,8,8,9,9,10,10-tridecafluoro-3,7-dihydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

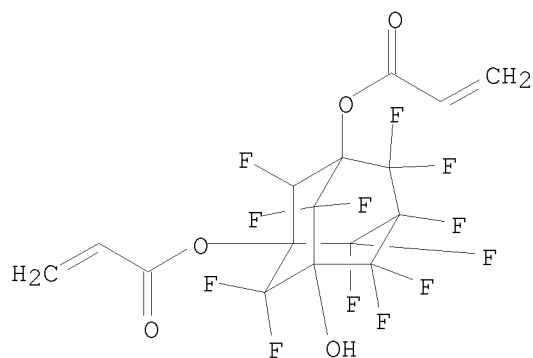
RN 872205-54-4 CAPLUS  
 CN 2-Propenoic acid, 2,2,4,4,6,6,7,8,8,9,10,10-dodecafluoro-3,5-dihydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)



RN 872205-55-5 CAPLUS  
 CN 2-Propenoic acid, 2,2,4,4,5,6,6,8,8,9,9,10,10-tridecafluoro-7-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]decane-1,3-diyl ester (9CI) (CA INDEX NAME)



RN 872205-56-6 CAPLUS  
 CN 2-Propenoic acid, 2,4,4,5,6,6,8,8,9,9,10,10-dodecafluoro-7-hydroxytricyclo[3.3.1.13,7]decane-1,3-diyl ester (9CI) (CA INDEX NAME)

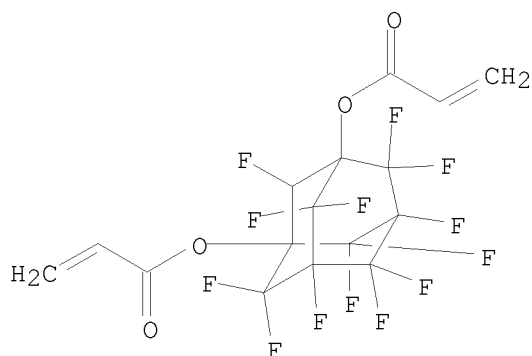


IT 558482-24-9P 872205-44-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (synthesis of fluorinated adamantane and its derivs.)  
 RN 558482-24-9 CAPLUS  
 CN 2-Propenoic acid, 2,2,4,4,5,6,6,7,8,8,9,9,10,10-tetradecafluorotricyclo[3.3.1.13,7]decane-1,3-diyl ester (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 872205-44-2 CAPLUS  
 CN 2-Propenoic acid, 2,4,4,5,6,6,7,8,8,9,9,10,10-tridecafluorotricyclo[3.3.1.13,7]decane-1,3-diyl ester (9CI) (CA INDEX NAME)





L9 ANSWER 20 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:299466 CAPLUS

DOCUMENT NUMBER: 142:354972

TITLE: Method for separation of adamantane starting materials having acidic hydroxy groups and their reaction products having converted hydroxy groups from reaction mixtures

INVENTOR(S): Ono, Hidetoshi; Tanaka, Shinji; Kodoi, Koichi; Hatakeyama, Naoyoshi

PATENT ASSIGNEE(S): Idemitsu Kosan Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005089363	A	20050407	JP 2003-324211	20030917
PRIORITY APPLN. INFO.:			JP 2003-324211	20030917

AB The method includes dissolving the reaction mixts. in water-insol. organic solvents, extracting the starting materials from the resulting solns. with aqueous

alkaline solns., adding acids to the extracted solns. until pH reaches  $\leq 5$ , and extracting the starting materials from the acidic extracted solns. with water-insol. organic solvents. Thus, perfluoroadamantane-1,3-diol (I) was esterified with acryloyl chloride in the presence of  $\text{NEt}_3$  in  $\text{Et}_2\text{O}$ , water was added, water phase was separated, and the resulting organic phase was washed

with water two times to give an organic phase containing I 154, 3-hydroxy-1-perfluoroadamantyl acrylate (II) 129, and perfluoroadamantane-1,3-diol diacrylate (III) 17 mmol. The organic phase was washed with  $\text{H}_3\text{BO}_3$ - $\text{NaOH}$  buffer solution (pH 9.5) three times to give an organic phase containing I 10, II 129, and III 17 mmol, and an aqueous phase.  $\text{HCl}$  was added to the aqueous phase until pH reached 1, and the acidic aqueous phase was extracted with  $\text{Et}_2\text{O}$  three times to recover I.

IT 558482-23-8P 558482-24-9P 849065-98-1P 849065-99-2P

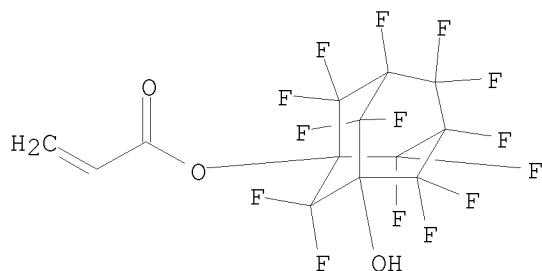
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PUR (Purification or recovery); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)

(separation of adamantane starting materials having acidic hydroxy groups and their reaction products having converted hydroxy groups from reaction mixts. by extraction)

RN 558482-23-8 CAPLUS

CN 2-Propenoic acid, 2,2,3,4,4,5,6,6,8,8,9,9,10,10-tetradecafluoro-7-

hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)



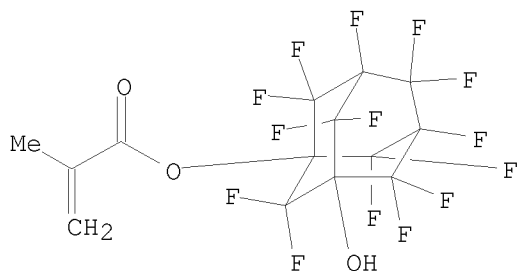
RN 558482-24-9 CAPLUS

CN 2-Propenoic acid, 2,2,4,4,5,6,6,7,8,8,9,9,10,10-tetradecafluorotricyclo[3.3.1.1<sup>3,7</sup>]decane-1,3-diyl ester (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

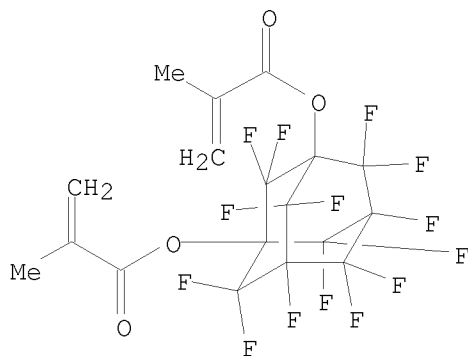
RN 849065-98-1 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2,2,4,4,5,6,6,7,8,8,9,9,10,10-tetradecafluoro-3-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)



RN 849065-99-2 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2,2,4,4,5,6,6,7,8,8,9,9,10,10-tetradecafluorotricyclo[3.3.1.1<sup>3,7</sup>]decane-1,3-diyl ester (9CI) (CA INDEX NAME)



L9 ANSWER 21 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2004:493761 CAPLUS  
DOCUMENT NUMBER: 141:55355

TITLE: Polymer compound, resist composition and dissolution inhibitor agent containing the polymer compound  
 INVENTOR(S): Ogata, Toshiyuki; Endo, Kotaro; Tsuji, Hiromitsu; Yoshida, Masaaki; Hada, Hideo; Takasu, Ryoichi; Sato, Mitsuru  
 PATENT ASSIGNEE(S): Tokyo Ohka Kogyo Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 45 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004050725	A1	20040617	WO 2003-JP15247	20031128
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2004182796	A	20040702	JP 2002-349167	20021129
AU 2003302653	A1	20040623	AU 2003-302653	20031128
US 20050130056	A1	20050616	US 2004-501459	20040714
US 7326512	B2	20080205		

PRIORITY APPLN. INFO.: JP 2002-349167 A 20021129  
 WO 2003-JP15247 W 20031128

AB Provided are a polymer compound having high transparency for use in a photoresist composition for microfabrication of the next generation, a resist composition using the polymer compound as a base polymer, and a dissoln. inhibitor agent composed of the polymer compound To ensure etching resistance, an alicyclic group is introduced into a side chain portion. Hydrogen atoms on the ring of the alicyclic group are highly fluorinated to ensure transparency to light of 157 nm wavelength, represented by an adsorption coefficient equal to or less than 3.0 mm<sup>-1</sup>. As the alicyclic group, a polycyclic group is preferably used. Hydrogen atoms are highly fluorinated by preferably substituting all H atoms on the ring by F atoms, i.e., forming a perfluoroalicyclic group. The resist composition is formed by using the polymer compound as a base polymer and further, the dissoln. inhibitor agent is formed of the polymer compound An example of the polymer was prepared from 1-perfluoroadamantyl methacrylate.

IT 705287-00-9P, 1-Perfluoroadamantyl methacrylate polymer  
 705287-01-0P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polymer compound, resist composition and dissoln. inhibitor agent containing the polymer compound)

RN 705287-00-9 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester, homopolymer (CA INDEX NAME)

CM 1

CRN 558482-17-0

CMF C14 H5 F15 O2

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

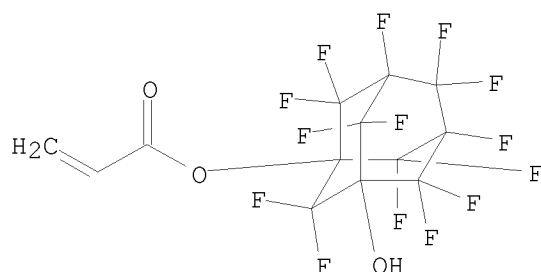
RN 705287-01-0 CAPLUS

CN 2-Propenoic acid, 2,2,3,4,4,5,6,6,8,8,9,9,10,10-tetradecafluoro-7-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 558482-23-8

CMF C13 H4 F14 O3



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 22 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:532631 CAPLUS

DOCUMENT NUMBER: 139:102734

TITLE: Perfluoroadamantyl acrylate compound and intermediate therefor

INVENTOR(S): Tanaka, Shinji; Yoshitome, Toshihide; Kodoi, Kouichi; Ono, Hidetoshi; Hatakeyama, Naoyoshi

PATENT ASSIGNEE(S): Idemitsu Petrochemical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003055841	A1	20030710	WO 2002-JP13378	20021220
W: KR, US				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR				
JP 2004123687	A	20040422	JP 2002-324257	20021107
JP 4173352	B2	20081029		
EP 1460057	A1	20040922	EP 2002-786177	20021220
EP 1460057	B1	20061213		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, CY, TR, BG, CZ, EE, SK				
TW 257385	B	20060701	TW 2002-91137169	20021224
US 20050131247	A1	20050616	US 2005-499305	20050126
US 7084295	B2	20060801		

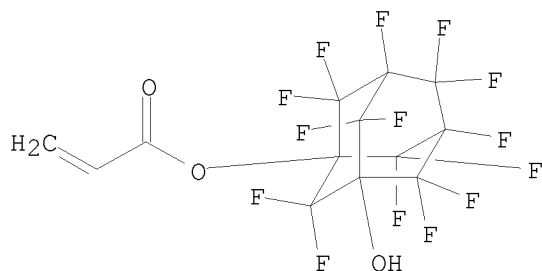
PRIORITY APPLN. INFO.: JP 2001-390972 A 20011225  
JP 2002-220729 A 20020730  
JP 2002-324257 A 20021107  
WO 2002-JP13378 W 20021220

OTHER SOURCE(S): MARPAT 139:102734

AB The invention relates to a perfluoroadamantyl acrylate compound which is

highly useful as a material for functional resins, etc.; and an intermediate therefor. The perfluoroadamantyl acrylate compound comprises perfluoroadamantane having a  $\text{CH}_2=\text{C}(\text{R})\text{COO}-$  group ( $\text{R} = \text{H}, \text{Me}, \text{trifluoromethyl}$ ) at the 1-position, at each of the 1- and 3-positions, at each of the 1-, 3-, and 5-positions, at each of the 1-, 3-, 5-, and 7-positions, or at the 2-position.

IT 558482-23-8P 558482-24-9P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (intermediate for manufacture of perfluoroadamantyl (meth)acrylates)  
 RN 558482-23-8 CAPLUS  
 CN 2-Propenoic acid, 2,2,3,4,4,5,6,6,8,8,9,9,10,10-tetradecafluoro-7-hydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)



RN 558482-24-9 CAPLUS  
 CN 2-Propenoic acid, 2,2,4,4,5,6,6,7,8,8,9,9,10,10-tetradecafluorotricyclo[3.3.1.1<sup>3,7</sup>]decane-1,3-diyl ester (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 558482-16-9P 558482-17-0P 558482-18-1P  
 558482-21-6P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (monomer; intermediate for manufacture of perfluoroadamantyl (meth)acrylates)  
 RN 558482-16-9 CAPLUS  
 CN 2-Propenoic acid, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

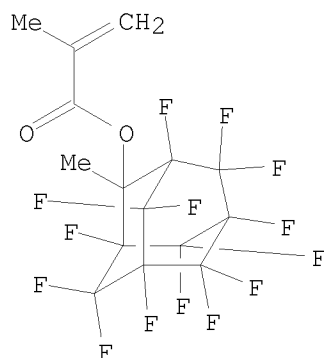
RN 558482-17-0 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 558482-18-1 CAPLUS  
 CN 2-Propenoic acid, 2-(trifluoromethyl)-, 2,2,3,4,4,5,6,6,7,8,8,9,9,10,10-pentadecafluorotricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl ester (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 558482-21-6 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 1,3,4,4,5,6,6,7,8,8,9,9,10,10-tetradecafluoro-2-methyltricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl ester (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 23 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:527557 CAPLUS

DOCUMENT NUMBER: 139:108694

TITLE: Polymers having acid-dissociable groups, chemically amplified positive photoresists containing them with good transparency to vacuum UV, and their pattern formation

INVENTOR(S): Hatakeyama, Jun; Harada, Yuji; Kawai, Yoshio; Sasako, Masaru; Endo, Masataka; Kishimura, Shinji; Maeda, Kazuhiko; Otani, Michitaka; Komoritani, Haruhiko  
PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan; Matsushita Electric Industrial Co., Ltd.; Central Glass Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.  
CODEN: JKXXAF

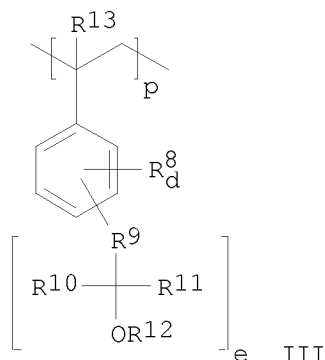
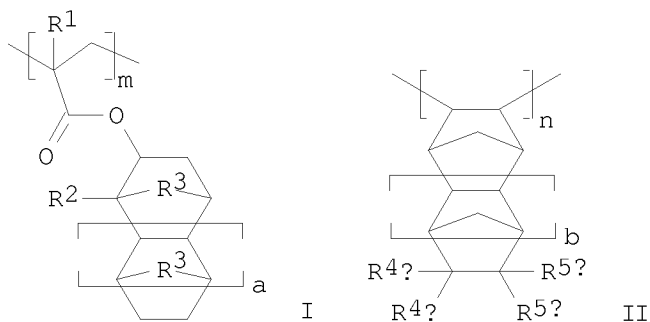
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2003192734	A	20030709	JP 2001-393328	20011226
JP 3879829	B2	20070214		
JP 2007051296	A	20070301	JP 2006-247855	20060913
PRIORITY APPLN. INFO.:			JP 2001-393328	A3 20011226
GI				



AB The invention relates to polymers having repeating units of I ( $R_1 = F$ , C1-15-fluoroalkyl;  $R_2 =$  C1-15-alkyl, fluoroalkyl;  $R_3 =$  methylene, ethylene, O, S;  $a = 0-2$ ;  $0 < m < 1$ ) and II [ $R_{4a}$ ,  $R_{4b}$ ,  $R_{5a}$ ,  $R_{5b} = H$ , OH, C1-20-alkyl, fluoroalkyl,  $(CH_2)_c CO_2 R_6$ ,  $(CH_2)_c CR_7_2 OR_6$ ;  $R_6 =$  acid-unstabilizable group, adhesive group, H, C1-20-alkyl, fluoroalkyl, etc.;  $R_7 = H$ , F, C1-20-alkyl, fluoroalkyl;  $0 < n < 1$ ;  $0 < m + n \leq 1$ ;  $b = 0, 1$ ;  $c = 0-6$ ] or I and III ( $R_8 = R_7$ ;  $R_9 =$  single bond, C1-4-hydrocarbylene;  $R_{10}$ ,  $R_{11} = H$ , F, C1-4-alkyl, fluoroalkyl, either of them containing F;  $R_{12} = H$ , C1-10-alkyl, acid-unstabilizable group;  $R_{13} = H$ , Me;  $0 < p < 1$ ;  $0 < m + p \leq 1$ ;  $d = 0-4$ ;  $e = 1-3$ ). The photoresists are patterned by F2 laser, Ar2 laser, and soft X ray.

IT 557103-26-1P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(chemical amplified photoresists with good vacuum UV transparency and etching resistance)

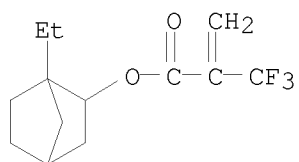
RN 557103-26-1 CAPLUS

CN 2-Propenoic acid, 2-(trifluoromethyl)-, 1-ethylbicyclo[2.2.1]hept-2-yl ester, polymer with  $\alpha, \alpha$ -bis(trifluoromethyl)bicyclo[2.2.1]hept-5-ene-2-ethanol, hexahydro-5-oxo-2,6-methanofuro[3,2-b]furan-3-yl 2-(trifluoromethyl)-2-propenoate and 1,1,2,2,3,3,3a,7a-octafluorooctahydro-4,7-methano-1H-inden-5-yl 2-(trifluoromethyl)-2-propenoate (9CI) (CA INDEX NAME)

CM 1

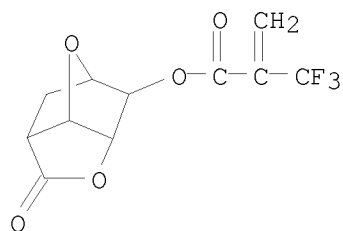
CRN 557103-18-1

CMF C13 H17 F3 O2



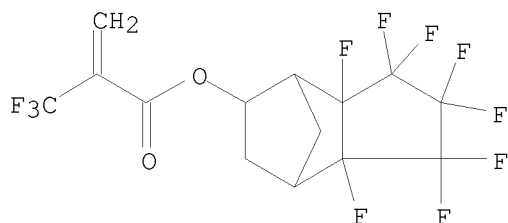
CM 2

CRN 479084-31-6  
CMF C11 H9 F3 O5



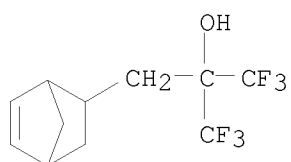
CM 3

CRN 478363-29-0  
CMF C14 H9 F11 O2



CM 4

CRN 196314-61-1  
CMF C11 H12 F6 O





INVENTOR(S): Hatakeyama, Jun; Harada, Yuji; Kawai, Yoshio; Sasago, Masaru; Endo, Masayuki; Kishimura, Shinji; Ootani, Michitaka; Komoriya, Haruhiko; Maeda, Kazuhiko  
 PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Japan; Matsushita Electric Industrial Co., Ltd.; Central Glass Co., Ltd.  
 SOURCE: U.S. Pat. Appl. Publ., 29 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20030099901	A1	20030529	US 2002-256141	20020927
US 6855477	B2	20050215		
JP 2003177539	A	20030627	JP 2002-276743	20020924
JP 3978601	B2	20070919		
TW 574614	B	20040201	TW 2002-91122064	20020925
PRIORITY APPLN. INFO.:			JP 2001-296871	A 20010927

OTHER SOURCE(S): MARPAT 138:409379

AB A chemical amplified photoresist composition comprises (A) a polymer comprising recurring units containing at least one fluorine atom, (B) a compound of  $R_4(R_3R_1R_2COR_5)_n$  ( $R_{1,2} = H, F, \text{alkyl, fluorinated alkyl}$ ;  $R_3 = \text{single bond, alkylene}$ ;  $R_4 = n\text{-valent aromatic, cyclic diene group}$ ;  $R_5 = H, C(=O)R_6$ ;  $R_6 = H, Me$ ;  $n = 2, 3, 4$ ), (C) an organic solvent, and (D) a photoacid generator. The chemical amplified photoresist is sensitive to high-energy radiation and has improved sensitivity and transparency at a wavelength of less than 200 nm.

IT 475471-96-6 532390-05-9

RL: TEM (Technical or engineered material use); USES (Uses)  
 (polymer; chemical amplified resist compns. and patterning process containing)

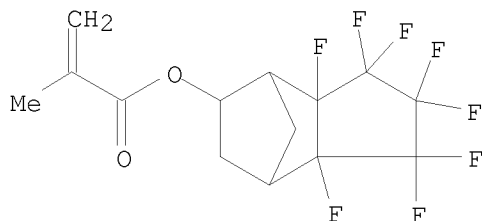
RN 475471-96-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl ester, polymer with 1,1,2,2,3,3,3a,7a-octafluorooctahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 399518-72-0

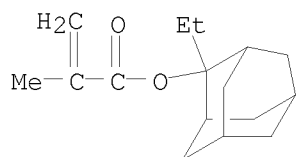
CMF C14 H12 F8 O2



CM 2

CRN 209982-56-9

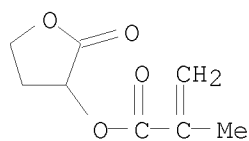
CMF C16 H24 O2



CM 3

CRN 195000-66-9

CMF C8 H10 O4



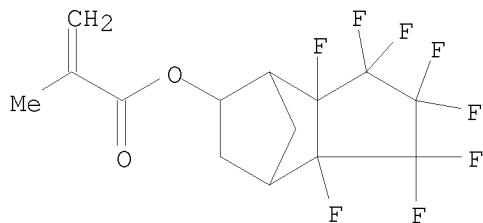
RN 532390-05-9 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.13,7]dec-2-yl ester, polymer with 4-(1-methylethenyl)- $\alpha,\alpha$ -bis(trifluoromethyl)benzenemethanol and 1,1,2,2,3,3,3a,7a-octafluorooctahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 399518-72-0

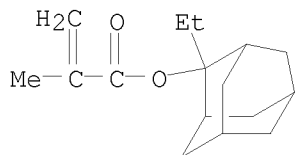
CMF C14 H12 F8 O2



CM 2

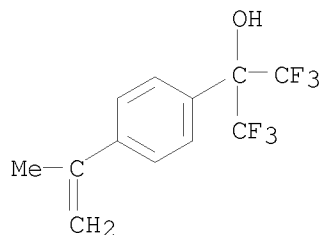
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CMF C16 H24 O2



CM 3

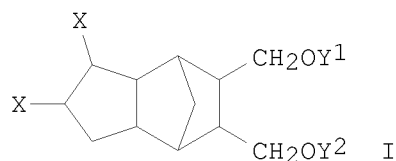
CRN 120721-71-3  
CMF C12 H10 F6 O



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 25 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2003:389963 CAPLUS  
DOCUMENT NUMBER: 138:385909  
TITLE: 3,4-Dihalogeno-8,9-bis(hydroxymethyl)tricyclo[5.2.1.0.2,6]decane and their esters with (substituted) acrylic acid, and their manufacture  
INVENTOR(S): Suzuki, Hideo  
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003146922	A	20030521	JP 2001-349802	20011115
PRIORITY APPLN. INFO.:			JP 2001-349802	20011115
OTHER SOURCE(S):	MARPAT	138:385909		
GI				



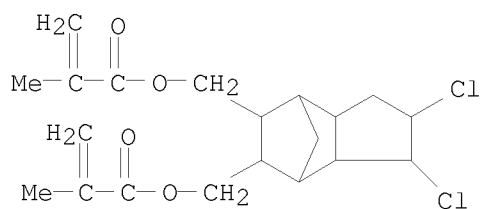
AB Title esters I (X = halo; Y1, Y2 = H, COCR1:CR2R3; R1 = H, C1-4 alkyl; R2, R3 = H, C1-10 alkyl; Y1 = Y2 ≠ H), useful for improving refractive index and heat resistance of optical materials, etc., are manufactured by transesterification of I (X = same as above; Y1 = Y2 = H) with R4O2CCR1:CR2R3 (R1-R3 = same as above; R4 = C1-10 alkyl) in the presence of acid catalysts, or by esterification with XCOCR1:CR2R3 (X, R1-R3 = same as above) in the presence of base catalysts. Thus, 8,9-bis(hydroxymethyl)tricyclo[5.2.1.0.2,6]dec-3-ene was chlorinated in the presence of CaCl2.2H2O, 35% HCl, Et3NCH2PhCl, and aqueous H2O2 to give 61% I (X = Cl, Y1 = Y2 = H), which was esterified with methacryloyl chloride in the presence of Et3N to give 68% I (X = Cl, Y1 = Y2 = methacryloyl).

IT 523978-38-3P 523978-40-7P  
RL: IMF (Industrial manufacture); PREP (Preparation)

(manufacture of dihalogenobis(hydroxymethyl)tricyclodecane (substituted)  
acrylates from bis(hydroxymethyl)tricyclodecene)

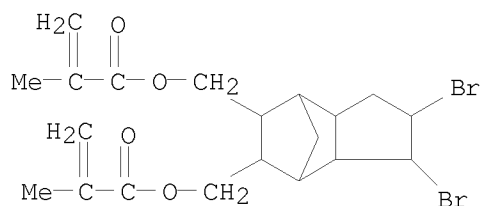
RN 523978-38-3 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (1,2-dichlorooctahydro-4,7-methano-1H-indene-  
5,6-diyl)bis(methylene) ester (9CI) (CA INDEX NAME)



RN 523978-40-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (1,2-dibromooctahydro-4,7-methano-1H-indene-  
5,6-diyl)bis(methylene) ester (9CI) (CA INDEX NAME)



L9 ANSWER 26 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:275109 CAPLUS

DOCUMENT NUMBER: 138:311562

TITLE: Chemical amplification resist material containing  
fluoropolymer compound and dissolution inhibitor and  
method of patterning

INVENTOR(S): Hatakeyama, Jun; Harada, Yuji; Kawai, Yoshio; Sasako,  
Masaru; Endo, Masataka; Kishimura, Shinji; Otani,  
Michitaka; Komoritani, Haruhiko; Maeda, Kazuhiko

PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan;  
Matsushita Electric Industrial Co., Ltd.; Central  
Glass Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 31 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

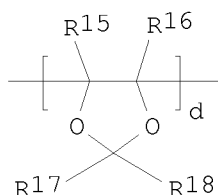
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003107706	A	20030409	JP 2001-296608	20010927
JP 3945200	B2	20070718		
PRIORITY APPLN. INFO.:			JP 2001-296608	20010927
OTHER SOURCE(S):	MARPAT	138:311562		

GI



I

AB The chemical amplification resist material comprises (A) a polymer compound containing  $\geq 1$  F and (B) a dissoln. inhibitor represented by  $R4(-R3CR1R2OR5)_n$  ( $R1,2 = H, F, C1-4$  alkyl, etc.;  $R3 =$  single bond,  $C1-4$  alkylene;  $R4 = n$ -valent  $C4-40$  aromatic group or cyclic diene;  $R5 =$  acid unstable group; and  $n = 2, 3, 4$ ), (C) an organic solvent, and (D) an acid generator. The component (A) may be represented by  $(R7R9C-CR8R10)_a$ ,  $[R11C(C(:O)OR12)-CH2]_b$ ,  $[R13C(C(:O)OR14)-CH2]_c$ , or I ( $R7-11 = H, F$ , trifluoromethyl;  $R12 = C1-20$  alkyl;  $R13 =$  trifluoromethyl;  $R14 =$  acid unstable group;  $R15,16 = H, F$ ;  $R17,18 = Me$ , trifluoromethyl; and at least one of  $R15-18$  contains F). The chemical amplification resist material further contains a basic compound. The process using a F2 laser or an Ar2 laser is also claimed.

IT 475471-96-6 508217-81-0

RL: TEM (Technical or engineered material use); USES (Uses)  
(fluoropolymer; chemical amplification resist material containing fluoropolymer compound and dissoln. inhibitor)

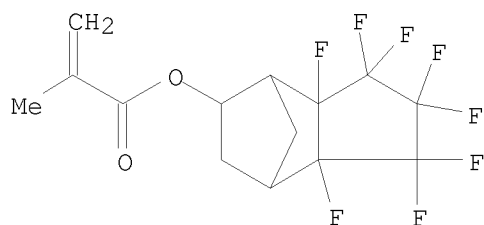
RN 475471-96-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl ester, polymer with 1,1,2,2,3,3,3a,7a-octafluorooctahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 399518-72-0

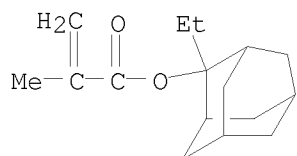
CMF C14 H12 F8 O2



CM 2

CRN 209982-56-9

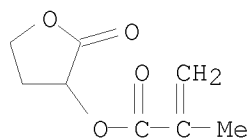
CMF C16 H24 O2



CM 3

CRN 195000-66-9

CMF C8 H10 O4



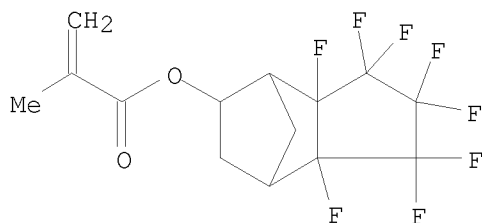
RN 508217-81-0 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1.3,7]dec-2-yl ester,  
polymer with 4-ethenyl- $\alpha,\alpha$ -bis(trifluoromethyl)benzenemethanol  
and 1,1,2,2,3,3,3a,7a-octafluorooctahydro-4,7-methano-1H-inden-5-yl  
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 399518-72-0

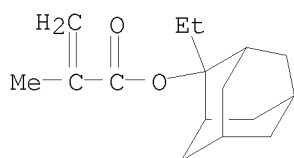
CMF C14 H12 F8 O2



CM 2

CRN 209982-56-9

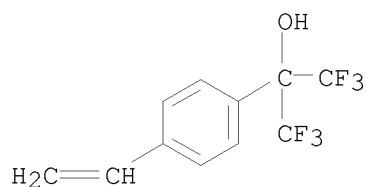
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CM 3

CRN 2386-82-5

CMF C11 H8 F6 O



L9 ANSWER 27 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:958652 CAPLUS

DOCUMENT NUMBER: 138:47305

TITLE: Chemically amplified positive resists, their acid-labile polymers, and deep-UV or soft x-ray lithography thereon

INVENTOR(S): Otani, Michitaka; Miyazawa, Satoru; Tsutsumi, Kentaro; Maeda, Kazuhiko; Harada, Yuji; Hatakeyama, Jun; Kawai, Yoshio; Sasako, Masaru; Endo, Masataka; Kishimura, Shinji

PATENT ASSIGNEE(S): Central Glass Co., Ltd., Japan; Shin-Etsu Chemical Industry Co., Ltd.; Matsushita Electric Industrial Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

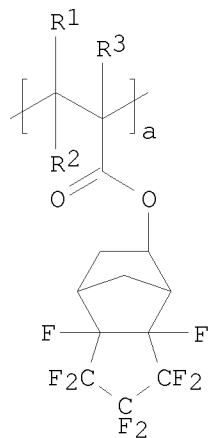
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002363222	A	20021218	JP 2001-170197	20010605
JP 3763403	B2	20060405		
PRIORITY APPLN. INFO.:			JP 2001-170197	20010605



I

AB The polymers consist of I, CH<sub>2</sub>CR<sub>6</sub>aC(p-C<sub>6</sub>H<sub>4</sub>CR<sub>5</sub>aR<sub>5</sub>bOR<sub>4</sub>), and CH<sub>2</sub>CR<sub>6</sub>bC(p-C<sub>6</sub>H<sub>4</sub>CR<sub>5</sub>cR<sub>5</sub>dOH) [R<sub>1</sub>-3 = H, F, C<sub>1</sub>-20 (fluoro)alkyl; R<sub>4</sub> = acid-labile group, adhesive group, C<sub>1</sub>-20 (fluoro)alkyl, essentially containing acid-labile group; R<sub>5</sub>a-R<sub>5</sub>d = H, F, fluoromethyl, essentially containing CF<sub>3</sub>]. Resists containing the polymers show high etching resistance and high transparency to 100-180-nm and 1-30-nm wavelength beam, thereby

facilitating manufacture of ultralarge-scale integrated circuits.

IT 478363-30-3P 478363-32-5P 478363-33-6P

478363-34-7P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(chemical amplified resists containing tricyclodecanyl acrylate-polymerized trifluoromethyl-substituted polymers)

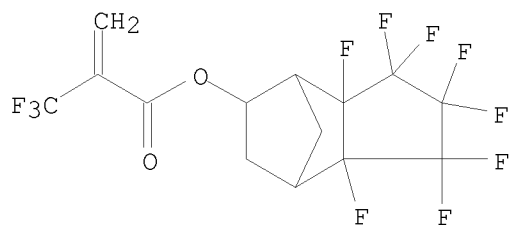
RN 478363-30-3 CAPLUS

CN 2-Propenoic acid, 2-(trifluoromethyl)-,  
1,1,2,2,3,3,3a,7a-octafluorooctahydro-4,7-methano-1H-inden-5-yl ester,  
polymer with 4-ethenyl- $\alpha,\alpha$ -bis(trifluoromethyl)benzenemethanol  
and 1-ethenyl-4-[2,2,2-trifluoro-1-(methoxymethoxy)-1-(trifluoromethyl)ethyl]benzene (9CI) (CA INDEX NAME)

CM 1

CRN 478363-29-0

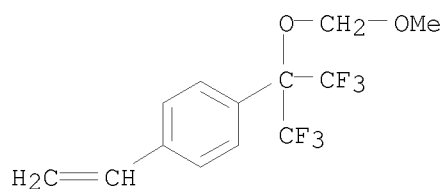
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CM 2

CRN 457048-16-7

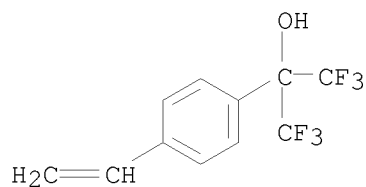
CMF C13 H12 F6 O2



CM 3

CRN 2386-82-5

CMF C11 H8 F6 O



RN 478363-32-5 CAPLUS

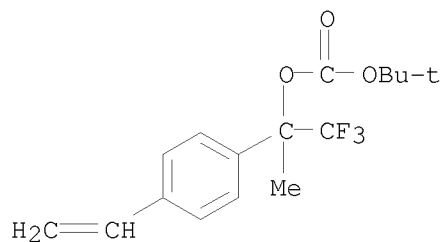


CN 2-Propenoic acid, 2-methyl-, 1,1,2,2,3,3,3a,7a-octafluorooctahydro-4,7-methano-1H-inden-5-yl ester, polymer with 1,1-dimethylethyl 1-(4-ethenylphenyl)-2,2,2-trifluoro-1-methylethyl carbonate, 1,1-dimethylethyl 1-(4-ethenylphenyl)-2,2,2-trifluoro-1-(trifluoromethyl)ethyl carbonate and 4-ethenyl- $\alpha,\alpha$ -bis(trifluoromethyl)benzenemethanol (9CI) (CA INDEX NAME)

CM 1

CRN 478363-31-4

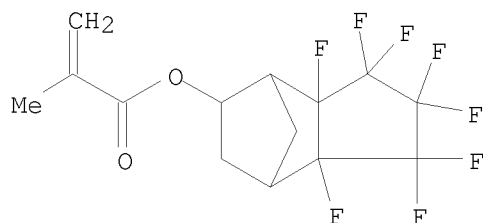
CMF C16 H19 F3 O3



CM 2

CRN 399518-72-0

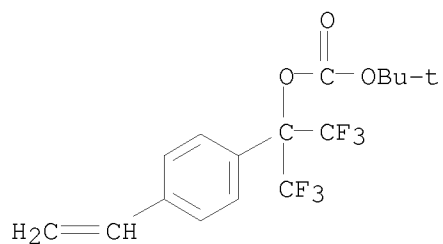
CMF C14 H12 F8 O2



CM 3

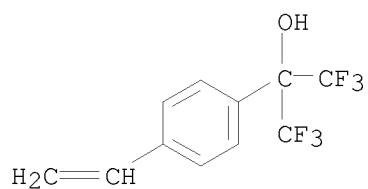
CRN 143336-93-0

CMF C16 H16 F6 O3



CM 4

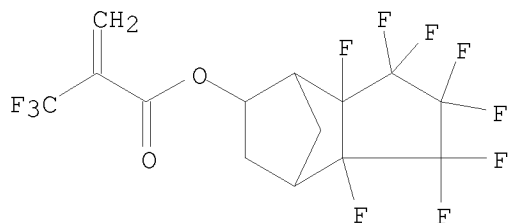
CRN 2386-82-5  
CMF C11 H8 F6 O



RN 478363-33-6 CAPLUS  
CN 2-Propenoic acid, 2-(trifluoromethyl)-, polymer with 1,1-dimethylethyl 1-(4-ethenylphenyl)-2,2,2-trifluoro-1-(trifluoromethyl)ethyl carbonate, 4-ethenyl- $\alpha,\alpha$ -bis(trifluoromethyl)benzenemethanol and 1,1,2,2,3,3,3a,7a-octafluorooctahydro-4,7-methano-1H-inden-5-yl 2-(trifluoromethyl)-2-propenoate (9CI) (CA INDEX NAME)

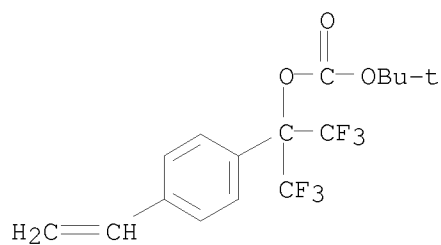
CM 1

CRN 478363-29-0  
CMF C14 H9 F11 O2



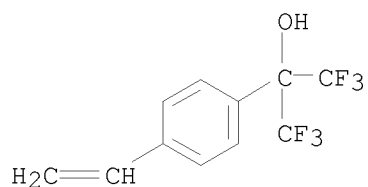
CM 2

CRN 143336-93-0  
CMF C16 H16 F6 O3



CM 3

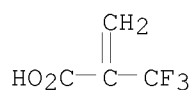
CRN 2386-82-5  
CMF C11 H8 F6 O



CM 4

CRN 381-98-6

CMF C4 H3 F3 O2



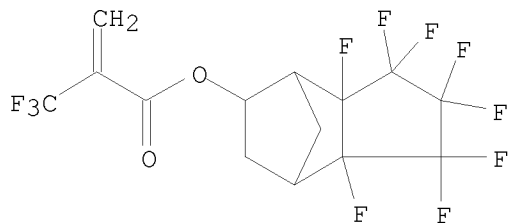
RN 478363-34-7 CAPLUS

CN 2-Propenoic acid, 2-(trifluoromethyl)-,  
1,1,2,2,3,3,3a,7a-octafluorooctahydro-4,7-methano-1H-inden-5-yl ester,  
polymer with 1,1-dimethylethyl 1-(4-ethenylphenyl)-2,2,2-trifluoro-1-  
(trifluoromethyl)ethyl carbonate and  
4-ethenyl- $\alpha,\alpha$ -bis(trifluoromethyl)benzenemethanol (9CI) (CA  
INDEX NAME)

CM 1

CRN 478363-29-0

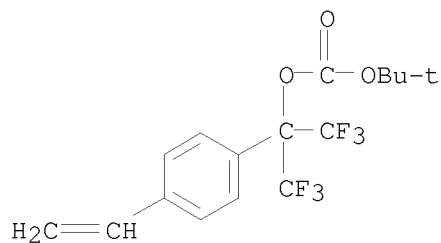
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CM 2

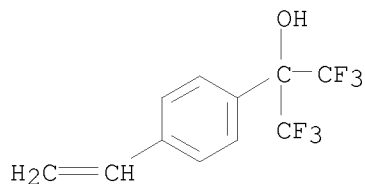
CRN 143336-93-0

CMF C16 H16 F6 O3



CM 3

CRN 2386-82-5  
CMF C11 H8 F6 O



L9 ANSWER 28 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2002:866834 CAPLUS

DOCUMENT NUMBER: 137:377436

TITLE: Polymers for chemically amplified positive-working resists and their use in pattern formation

INVENTOR(S): Harada, Yuji; Watanabe, Atsushi; Hatakeyama, Jun; Kawai, Yoshio; Sasako, Masaru; Endo, Masataka; Kishimura, Shinji; Otani, Michitaka; Miyazawa, Satoru; Tsutsumi, Kentaro; Maeda, Kazuhiko

PATENT ASSIGNEE(S): Shin-Etsu Chemical Industry Co., Ltd., Japan; Matsushita Electric Industrial Co., Ltd.; Central Glass Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

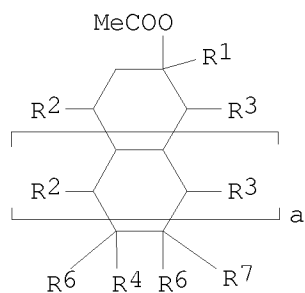
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002327013	A	20021115	JP 2002-50829	20020227
JP 3904064	B2	20070411		
US 20030008231	A1	20030109	US 2002-84828	20020228
US 6861197	B2	20050301		
PRIORITY APPLN. INFO.:			JP 2001-53664	A 20010228
			JP 2001-53669	A 20010228

GI



AB The polymers have weight-average mol. weight 1000-500,000 and groups I [ $\text{R}^1$ - $\text{R}^3$ ,  $\text{R}^6$ ,  $\text{R}^7$  = H, F, C1-20 linear, branched, or cyclic (fluorinated) alkyl;  $\text{R}^2$  and

R3 may be C1-20 alkylene optionally containing hetero atoms to form ring; R4, R5 = H, F; , R6 and/or R7 contains  $\geq 1$  F; R6 and R7 may be C1-20 linear, branched, or cyclic (fluorinated) alkylene to form ring; a = 0, 1]. Patterns are formed by coating substrates with resists containing the polymers, heating, exposing with photomasks and high-energy rays at 100-180 nm- or 1-30 nm-wavelength regions, heating optionally, and developing with solns. The resists have high sensitivity high-energy rays, transparency, and plasma etching resistance and are suitable for fine pattern formation in ultra LSI manufacture

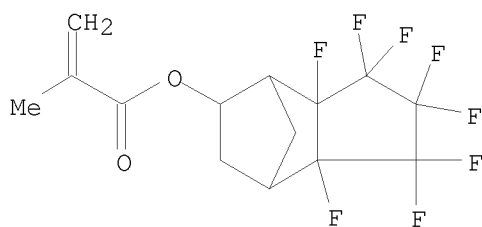
IT 399518-72-0P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(F-containing group-containing polymers for chemical amplified pos.-working resists and their use in pattern formation)

RN 399518-72-0 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,1,2,2,3,3,3a,7a-octafluorooctahydro-4,7-methano-1H-inden-5-yl ester (CA INDEX NAME)



IT 475471-96-6P 475471-97-7P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(F-containing group-containing polymers for chemical amplified pos.-working resists and their use in pattern formation)

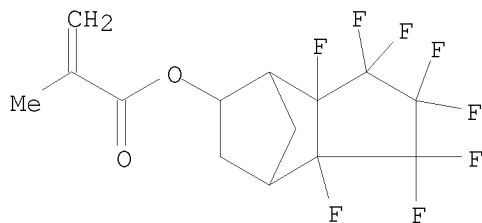
RN 475471-96-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl ester, polymer with 1,1,2,2,3,3,3a,7a-octafluorooctahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

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CRN 399518-72-0

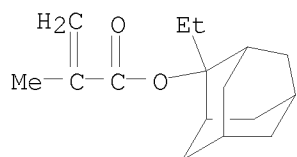
CMF C14 H12 F8 O2



CM 2

CRN 209982-56-9

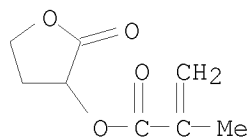
CMF C16 H24 O2



CM 3

CRN 195000-66-9

CMF C8 H10 O4



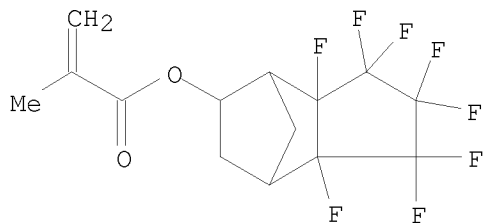
RN 475471-97-7 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1.3]dec-2-yl ester, polymer with 1,1,2,2,3,3,3a,7a-octafluorooctahydro-4,7-methano-1H-inden-5-yl 2-methyl-2-propenoate, 2,2,3,3,4,4,5,5-octafluoropentyl 2-methyl-2-propenoate and tetrahydro-2-oxo-3-furanyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

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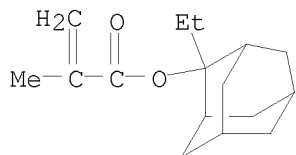
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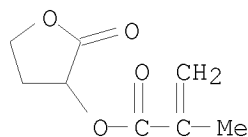
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CMF C16 H24 O2



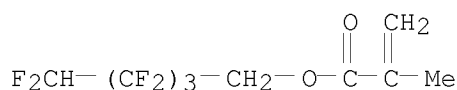
CM 3

CRN 195000-66-9  
CMF C8 H10 O4



CM 4

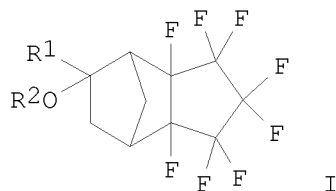
CRN 355-93-1  
CMF C9 H8 F8 O2



L9 ANSWER 29 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2002:143314 CAPLUS  
DOCUMENT NUMBER: 136:184276  
TITLE: Octafluorotricyclodecane derivatives and processes for producing same  
INVENTOR(S): Miyazawa, Satoru; Ootani, Michitaka; Tsutsumi, Kentaro  
PATENT ASSIGNEE(S): Central Glass Company, Limited, Japan  
SOURCE: U.S. Pat. Appl. Publ., 7 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 20020022740	A1	20020221	US 2001-883349	20010619
US 6414167	B2	20020702		
JP 2002080431	A	20020319	JP 2001-185429	20010619
PRIORITY APPLN. INFO.:			JP 2000-183510	A 20000619
OTHER SOURCE(S):	MARPAT	136:184276		

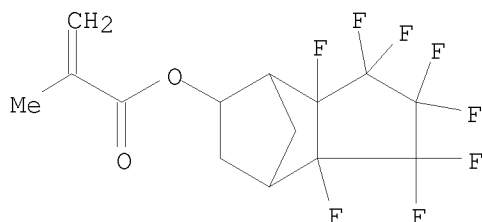
GI



AB The invention relates to a novel octafluorotricyclodecane derivative represented by the general formula (I), where R1 is a hydrogen atom, a halogen atom, a hydrocarbon group or a halogenated hydrocarbon group, R2 is represented by the general formula R3(CO)m, m is 0 or 1, and R3 is a hydrogen atom or a hydrocarbon group optionally having a substituent.

This octafluorotricyclodecane derivative may be useful as a monomer for producing various functional polymers or as a raw material of the same. Thus, 2,3,3,4,4,5,5,6-octafluorotricyclo[5.2.1.0<sup>2,6</sup>]-8-decene obtained from octafluorocyclopentene and cyclopentadiene was epoxidized in the presence of metachloroperbenzoic acid, reduced in the presence of lithium aluminum hydride giving an octafluorotricyclodecane alc., and reacted with methacrylic acid in the presence of sulfuric acid to give an octafluorotricyclodecane methacrylate.

IT 399518-72-0P  
 RL: IMF (Industrial manufacture); PREP (Preparation)  
 (preparation of octafluorotricyclodecane derivs. useful for monomers)  
 RN 399518-72-0 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 1,1,2,2,3,3,3a,7a-octafluorooctahydro-4,7-methano-1H-inden-5-yl ester (CA INDEX NAME)



L9 ANSWER 30 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:697811 CAPLUS

DOCUMENT NUMBER: 131:291013

TITLE: Filters for removing trace heavy metal ions from polluted waters

INVENTOR(S): Takaoka, Kazuchiyo; Matsubayashi, Tatsuo; Aisawa, Wakana

PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 11300342	A	19991102	JP 1998-110307	19980421
PRIORITY APPLN. INFO.:			JP 1998-110307	19980421

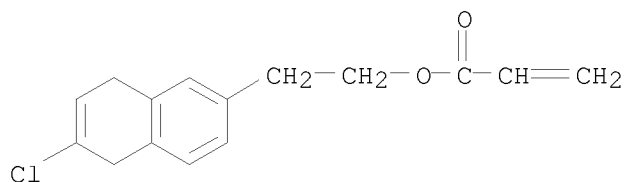
AB The filter components for removing trace dissolved heavy metal ions (e.g., Pb, Cd or Hg) from polluted groundwaters or river waters are made from granular or (non)woven fiber sheet supports by loading with organic compds having functional groups such as thiophenol, thiazole, thioamide, or thioketone structures on the support surfaces.

IT 246867-98-1D, reaction products with sodium mercaptan  
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (bonding to granular or (non)woven fiber sheet supports; as filter components for removing trace dissolved heavy metal ions from polluted waters)

RN 246867-98-1 CAPLUS

CN 2-Propenoic acid, 2-(6-chloro-5,8-dihydro-2-naphthalenyl)ethyl ester (CA INDEX NAME)





L9 ANSWER 31 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:617932 CAPLUS

DOCUMENT NUMBER: 131:244286

TITLE: (Meth)acrylates, their compositions, and optical materials having high refractive index

INVENTOR(S): Hyakuta, Junji; Hara, Tadashi

PATENT ASSIGNEE(S): Tokuyama Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

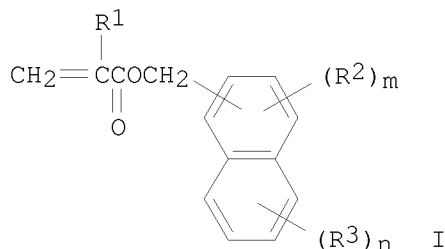
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 11263749	A	19990928	JP 1998-67444	19980317
PRIORITY APPLN. INFO.:			JP 1998-67444	19980317
OTHER SOURCE(S):	MARPAT	131:244286		

GI



AB (meth)acrylates comprise I (R1 = H, Me; R2, R3 = Br, alkyl, alkoxy; m = 0-3; n = 0-2), which are liquid at room temperature Thus, 1-naphthylmethyl methacrylate (prepared from 1-naphthalenemethanol and Me methacrylate) 20, 2,2-bis[3,5-dibromo-4-(methacryloyloxyethoxy)phenyl]propane 45, CH2:CMCO2(CH2CH2S)3CH2CH2O2CCMe:CH2 22, glycidyl methacrylate 5,  $\alpha$ -methylstyrene 8, and  $\alpha$ -methylstyrene dimer 1 part were polymerized in the presence of radical initiators in a mold to give a transparent moldings showing refractive index (nD20) 1.597 and Abbe number 32.

IT 244088-77-5P 244088-78-6P 244088-82-2P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

((meth)acrylate polymers for optical materials having high refractive index)

RN 244088-77-5 CAPLUS

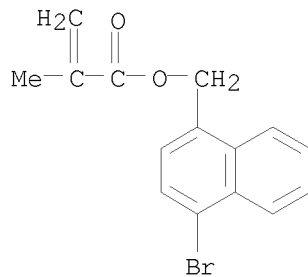
CN 2-Propenoic acid, 2-methyl-, (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy-2,1-ethanediyl] ester, polymer with (4-bromo-1-naphthalenyl)methyl 2-methyl-2-propenoate, (1-methylethenyl)benzene, (1-methylethenyl)benzene dimer, oxiranylmethyl 2-methyl-2-propenoate and thiobis(2,1-ethanediylthio-2,1-ethanediyl)

bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 162658-14-2

CMF C15 H13 Br O2

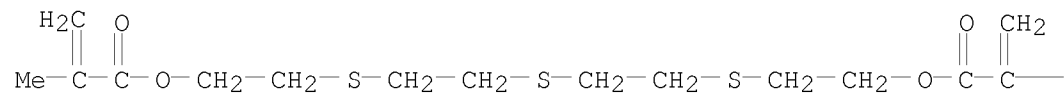


CM 2

CRN 141631-22-3

CMF C16 H26 O4 S3

PAGE 1-A



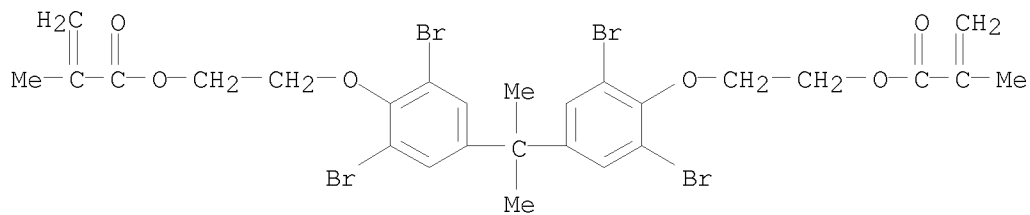
PAGE 1-B

— Me

CM 3

CRN 67006-39-7

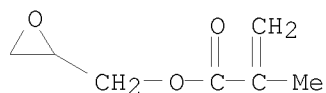
CMF C27 H28 Br4 O6



CM 4

CRN 106-91-2

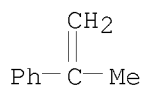
CMF C7 H10 O3



CM 5

CRN 98-83-9

CMF C9 H10



CM 6

CRN 6144-04-3

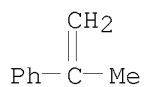
CMF (C9 H10)2

CCI PMS

CM 7

CRN 98-83-9

CMF C9 H10



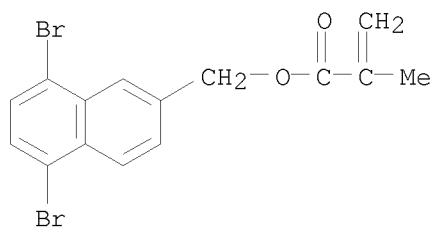
RN 244088-78-6 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (1-methylethylidene)bis[(2,6-dibromo-4,1-phenylene)oxy-2,1-ethanediyl] ester, polymer with (5,8-dibromo-2-naphthalenyl)methyl 2-methyl-2-propenoate, (1-methylethenyl)benzene, (1-methylethenyl)benzene dimer, oxiranylmethyl 2-methyl-2-propenoate and thiobis(2,1-ethanediylthio-2,1-ethanediyl) bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

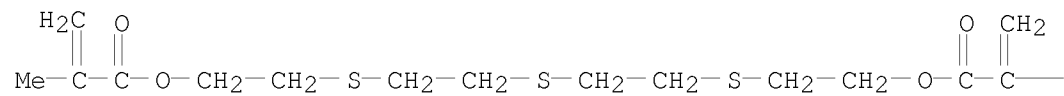
CRN 244088-69-5

CMF C15 H12 Br2 O2



CM 2  
 CRN 141631-22-3  
 CMF C16 H26 O4 S3

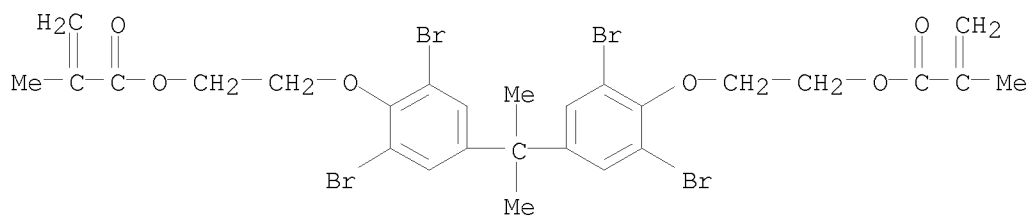
PAGE 1-A



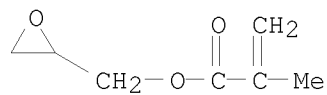
PAGE 1-B

— Me

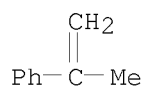
CM 3  
 CRN 67006-39-7  
 CMF C27 H28 Br4 O6



CM 4  
 CRN 106-91-2  
 CMF C7 H10 O3



CM 5  
 CRN 98-83-9  
 CMF C9 H10



CM 6

CRN 6144-04-3

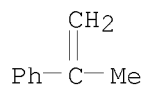
CMF (C9 H10) 2

CCI PMS

CM 7

CRN 98-83-9

CMF C9 H10



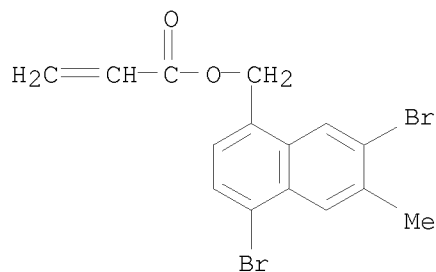
RN 244088-82-2 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (1-methylethyliidene)bis[(2,6-dibromo-4,1-phenylene)oxy-2,1-ethanediyl] ester, polymer with (4,7-dibromo-6-methyl-1-naphthalenyl)methyl 2-propenoate, (1-methylethenyl)benzene, (1-methylethenyl)benzene dimer, oxiranylmethyl 2-methyl-2-propenoate and thiobis(2,1-ethanediylthio-2,1-ethanediyl) bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 244088-73-1

CMF C15 H12 Br2 O2

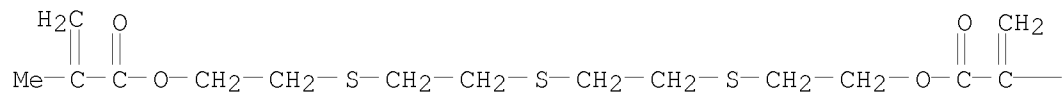


CM 2

CRN 141631-22-3

CMF C16 H26 O4 S3

PAGE 1-A



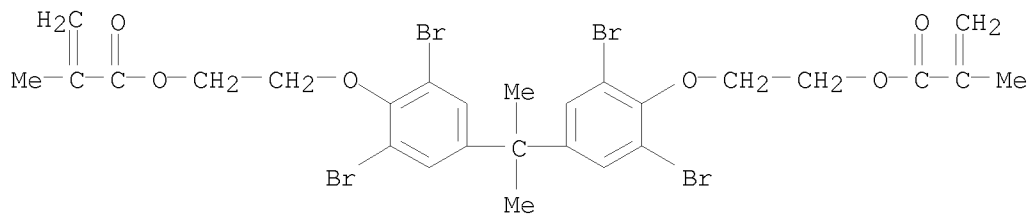
PAGE 1-B

— Me

CM 3

CRN 67006-39-7

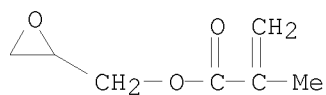
CMF C27 H28 Br4 O6



CM 4

CRN 106-91-2

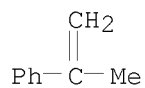
CMF C7 H10 O3



CM 5

CRN 98-83-9

CMF C9 H10



CM 6

CRN 6144-04-3

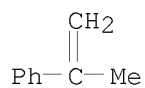
CMF (C9 H10) 2

CCI PMS

CM 7

CRN 98-83-9

CMF C9 H10



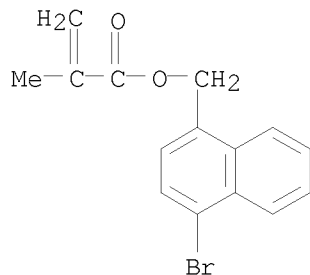
IT 162658-14-2P, 4-Bromo-1-naphthylmethyl methacrylate  
244088-69-5P 244088-73-1P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
(Reactant or reagent)

((meth)acrylate polymers for optical materials having high refractive index)

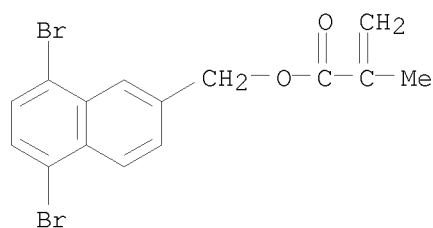
RN 162658-14-2 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (4-bromo-1-naphthalenyl)methyl ester (CA INDEX NAME)



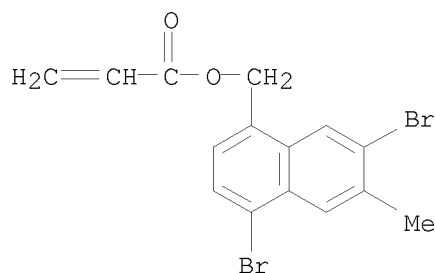
RN 244088-69-5 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (5,8-dibromo-2-naphthalenyl)methyl ester (CA INDEX NAME)



RN 244088-73-1 CAPLUS

CN 2-Propenoic acid, (4,7-dibromo-6-methyl-1-naphthalenyl)methyl ester (CA INDEX NAME)



L9 ANSWER 32 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1999:7955 CAPLUS

DOCUMENT NUMBER: 130:66889

TITLE: Halogenated acrylates and polymers derived therefrom

INVENTOR(S): Moore, George G. I.; McCormick, Fred B.; Chatteraj, Mita; Cross, Elisa M.; Liu, Junkang Jacob; Roberts, Ralph R.; Schulz, Jay F.

PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Company, USA

SOURCE: PCT Int. Appl., 73 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9856749	A1	19981217	WO 1997-US17437	19970929
W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW			
RW:	GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
US 6005137	A	19991221	US 1997-872235	19970610
AU 9747392	A	19981230	AU 1997-47392	19970929
EP 1009729	A1	20000621	EP 1997-909884	19970929
EP 1009729	B1	20050119		
R:	DE, FR, GB, IT			
CN 1259932	A	20000712	CN 1997-182296	19970929
CN 1125030	C	20031022		
JP 2002514259	T	20020514	JP 1999-502352	19970929
JP 4065932	B2	20080326		
US 6313245	B1	20011106	US 1999-379156	19990823
US 6288266	B1	20010911	US 1999-382300	19990824
US 20010037028	A1	20011101	US 2001-846739	20010501
US 6362379	B2	20020326		
PRIORITY APPLN. INFO.:			US 1997-872235	A 19970610
			WO 1997-US17437	W 19970929
			US 1999-379156	A3 19990823

OTHER SOURCE(S): MARPAT 130:66889

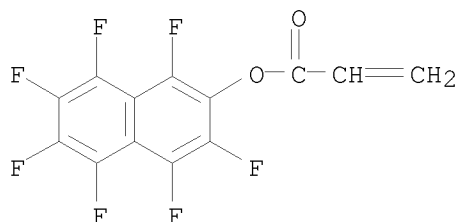
AB Acrylates having a high degree of halogenation, as well as polymers that include one or more mer units derived from such acrylates provide materials having tailorable optical and phys. properties. The polymers find utility particularly in optical devices including optical waveguides and interconnecting devices.

IT 217824-90-3P

RL: IMF (Industrial manufacture); PREP (Preparation)  
(halogenated acrylates and polymers derived therefrom)

RN 217824-90-3 CAPLUS

CN 2-Propenoic acid, 1,3,4,5,6,7,8-heptafluoro-2-naphthalenyl ester (CA INDEX NAME)



REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 33 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1996:391721 CAPLUS

DOCUMENT NUMBER: 125:71469

ORIGINAL REFERENCE NO.: 125:13393a,13396a

TITLE: Two-Dimensional Triplet Energy Migration and Transfer

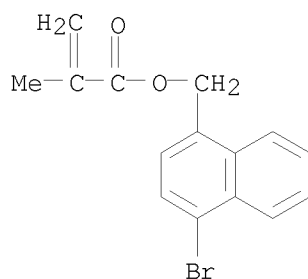


in Polymer Langmuir-Blodgett Films  
 AUTHOR(S): Hisada, Kenji; Ito, Shinzaburo; Yamamoto, Masahide  
 CORPORATE SOURCE: Graduate School of Engineering, Kyoto University,  
 Kyoto, 606-01, Japan  
 SOURCE: Langmuir (1996), 12(15), 3682-3687  
 CODEN: LANGD5; ISSN: 0743-7463  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The triplet energy migration and transfer in Langmuir-Blodgett films  
 prepared by the copolymers of octadecyl methacrylate with  
 2-(9-carbazolyl)ethyl methacrylate and (4-bromo-1-naphthyl)methyl  
 methacrylate were measured and simulated by the Monte Carlo method. At a  
 high donor d. ( $1.3 \times 10^{-6}$  mol/m<sup>2</sup>), the triplet energy transfer takes  
 place by a dynamic process, i.e., a few steps of energy migration among  
 carbazole (donor) chromophores, and followed by energy transfer to  
 bromonaphthalene (acceptor). By solving the differential equations  
 relevant to the energy migration and energy transfer on a two-dimensional  
 square lattice of  $31 \times 31 = 961$  lattice points, we successfully  
 simulated the time evolution of the triplet energy quenching. The calculated  
 quenching efficiencies were in agreement with the exptl. values observed in  
 the LB film of poly(octadecyl methacrylate) containing both the donor and  
 acceptor moieties.  
 IT 162658-15-3, (4-Bromo-1-naphthyl)methyl  
 methacrylate-2-(9-carbazolyl)ethyl methacrylate-octadecyl methacrylate  
 copolymer  
 RL: PEP (Physical, engineering or chemical process); PROC (Process)  
 (two-dimensional intramol. triplet energy migration and transfer in  
 Langmuir-Blodgett films of)  
 RN 162658-15-3 CAPLUS  
 CN 2-Propenoic acid, 2-methyl-, (4-bromo-1-naphthalenyl)methyl ester, polymer  
 with 2-(9H-carbazol-9-yl)ethyl 2-methyl-2-propenoate and octadecyl  
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 162658-14-2

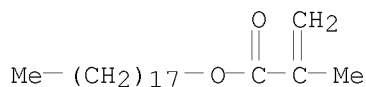
CMF C15 H13 Br O2



CM 2

CRN 32360-05-7

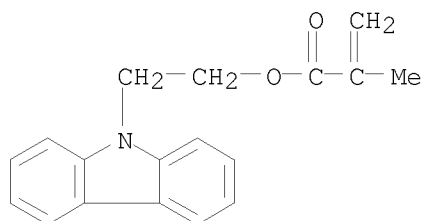
CMF C22 H42 O2



CM 3

CRN 15657-91-7

CMF C18 H17 N O2



L9 ANSWER 34 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:503466 CAPLUS

DOCUMENT NUMBER: 123:146123

ORIGINAL REFERENCE NO.: 123:26025a, 26028a

TITLE: Fluorine-containing polymers and medical goods therefrom

INVENTOR(S): Yamamoto, Fumio; Yakushiji, Yukie

PATENT ASSIGNEE(S): Kuraray Co, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

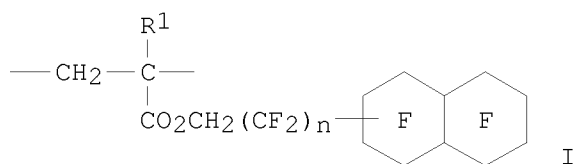
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07041518	A	19950210	JP 1993-208151	19930802
PRIORITY APPLN. INFO.:			JP 1993-208151	19930802

GI



AB The hard, gas-permeable, transparent, and antisoiling polymers have perfluoro-Decalin-containing units I (R<sub>1</sub> = H, Me; n = 0-5). Thus, 1-(hydroxymethyl)perfluorodecalin and methacryloyl chloride reacted at room temperature in Et<sub>2</sub>O containing Et<sub>3</sub>N and hydroquinone to give 1-(methacryloyloxymethyl)perfluorodecalin, 60 parts of which was polymerized with 20 parts tris(trimethylsiloxy)silylpropyl methacrylate and 20 parts Me methacrylate at 50° for 18 h, at 60° for 6 h, at 100° for 1 h, and at 120° for 1 h to give a solid polymer showing number-average mol. weight 300,000, O permeation 22.6 + 10-11 mL O<sub>2</sub> cm/cm<sup>2</sup>-s-mmHg, and Vickers hardness 12.1. A contact lens from the polymer showed good surface properties.

IT 166522-07-2P 166522-09-4P

RL: DEV (Device component use); IMF (Industrial manufacture); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PREP

(Preparation); USES (Uses)

(fluorine-containing polymers for medical goods with good gas permeability, hardness, soiling resistance, and transparency)

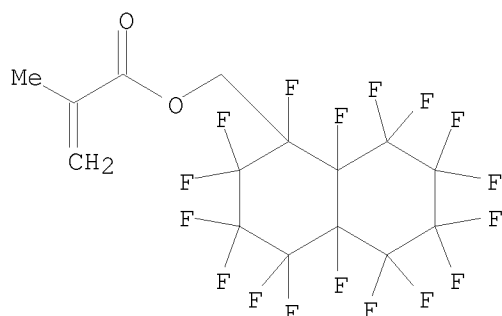
RN 166522-07-2 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (1,2,2,3,3,4,4,4a,5,5,6,6,7,7,8,8,8a-heptafluorodecahydro-1-naphthalenyl)methyl ester, polymer with methyl 2-methyl-2-propenoate and 3-[3,3,3-trimethyl-1,1-bis[(trimethylsilyl)oxy]disiloxanyl]propyl 2-methyl-2-propenoate (9CI)  
(CA INDEX NAME)

CM 1

CRN 166522-05-0

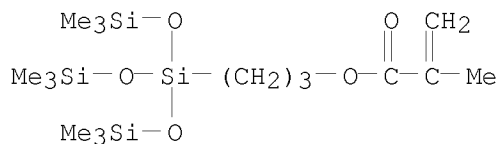
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CM 2

CRN 17096-07-0

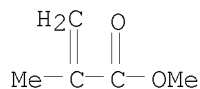
CMF C16 H38 O5 Si4



CM 3

CRN 80-62-6

CMF C5 H8 O2



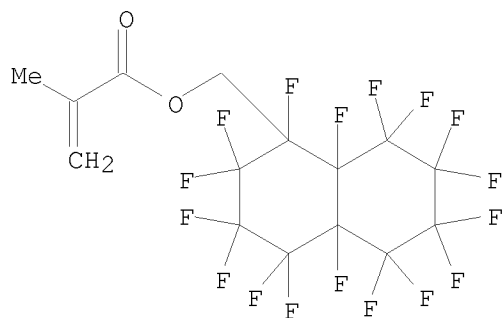
RN 166522-09-4 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (1,2,2,3,3,4,4,4a,5,5,6,6,7,7,8,8,8a-heptafluorodecahydro-1-naphthalenyl)methyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 166522-05-0

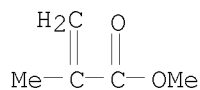
CMF C15 H7 F17 O2



CM 2

CRN 80-62-6

CMF C5 H8 O2

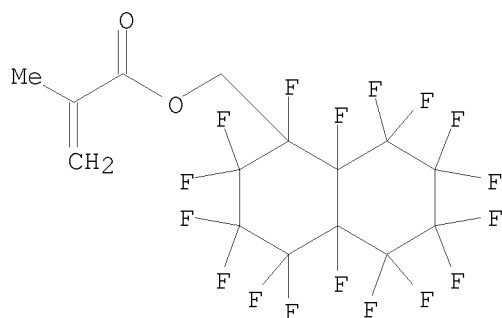


IT 166522-05-0P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent) (preparation of)

RN 166522-05-0 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (1,2,2,3,3,4,4,4a,5,5,6,6,7,7,8,8,8a-heptafluorodecahydro-1-naphthalenyl)methyl ester (CA INDEX NAME)



L9 ANSWER 35 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:413474 CAPLUS

DOCUMENT NUMBER: 122:277831

ORIGINAL REFERENCE NO.: 122:50437a, 50440a

TITLE: Triplet Energy Transfer from Carbazole to Bromonaphthalene in a Two-Dimensional Chromophore Plane Prepared by Poly(octadecyl methacrylate) Langmuir-Blodgett Films

AUTHOR(S): Hisada, Kenji; Ito, Shinzaburo; Yamamoto, Masahide  
CORPORATE SOURCE: Graduate School of Engineering, Kyoto University, Kyoto, 606, Japan

SOURCE: Langmuir (1995), 11(3), 996-1000

PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The triplet energy migration and transfer in Langmuir-Blodgett (LB) films prepared by the copolymers of octadecyl methacrylate with 2-(9-carbazolyl)ethyl methacrylate (donor unit) and (4-bromo-1-naphthyl)methyl methacrylate (acceptor unit), were investigated. Compared with the singlet energy transfer, a more strict spatial arrangement of chromophores is required in the triplet energy transfer because of the short range interaction of the electron exchange mechanism. For the control of triplet energy transfer, the position of chromophores has to be regulated within the range narrower than the thickness of a layer of LB film (.apprx.3 nm). The dependence of the quenching efficiency of carbazole phosphorescence upon the acceptor d. at a low donor d. in the film plane was reproduced by the active sphere model with a planar distribution of chromophores in a monolayer. This indicates that the chromophores distribute in a two-dimensional plane within the range of a few angstroms. In the present LB films, the spatial distribution of chromophores in a vertical direction can be regulated enough to control the triplet energy transfer although the distribution in the lateral direction is random. When the donor d. was high, the apparent radius of the active sphere was longer than the value at a low donor d. This finding suggests that the energy transfer occurs by a dynamic process, i.e., a few steps of energy migration among donors, and then is followed by energy transfer to the acceptor.

IT 162658-16-4, 4-Bromo-1-naphthylmethyl methacrylate homopolymer

RL: PRP (Properties)  
 (phosphorescence properties of)

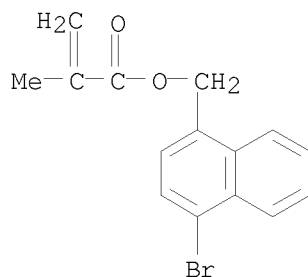
RN 162658-16-4 CAPLUS

CN 2-Propenoic acid, 2-methyl-, (4-bromo-1-naphthalenyl)methyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 162658-14-2

CMF C15 H13 Br O2

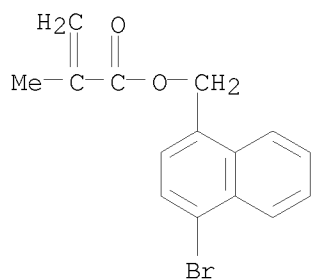


IT 162658-14-2P, (4-Bromo-1-naphthyl)methyl methacrylate

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and copolymn. of)

RN 162658-14-2 CAPLUS

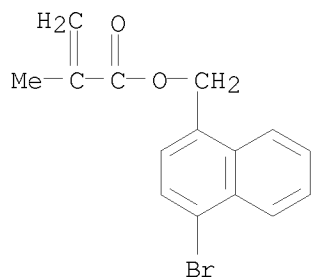
CN 2-Propenoic acid, 2-methyl-, (4-bromo-1-naphthalenyl)methyl ester (CA INDEX NAME)



IT 162658-15-3P, 4-Bromo-1-naphthylmethyl  
methacrylate-2-(9-carbazolyl)ethyl methacrylate-octadecyl methacrylate  
copolymer  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN  
(Synthetic preparation); PREP (Preparation); PROC (Process)  
(triplet energy migration and transfer in Langmuir-Blodgett films of)  
RN 162658-15-3 CAPLUS  
CN 2-Propenoic acid, 2-methyl-, (4-bromo-1-naphthalenyl)methyl ester, polymer  
with 2-(9H-carbazol-9-yl)ethyl 2-methyl-2-propenoate and octadecyl  
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

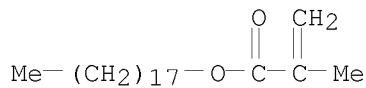
CM 1

CRN 162658-14-2  
CMF C15 H13 Br O2



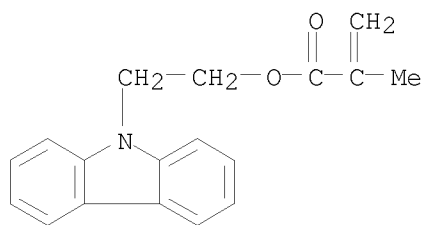
CM 2

CRN 32360-05-7  
CMF C22 H42 O2



CM 3

CRN 15657-91-7  
CMF C18 H17 N O2



L9 ANSWER 36 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1965:432052 CAPLUS

DOCUMENT NUMBER: 63:32052

ORIGINAL REFERENCE NO.: 63:5753b-d

TITLE: The effect of alcohols on the emulsion polymerization of acrylates and methacrylates

AUTHOR(S): Zabotin, K. P.; Trotskii, B. B.

SOURCE: Trudy po Khimii i Khimicheskoi Tekhnologii (1964), (2), 311-16

CODEN: TKKTAE; ISSN: 0564-3457

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB In low-temperature emulsion polymerization processes, alc. must be added as an antifreeze. The adverse effect of MeOH, EtOH, and BuOH on the polymerization rate and on chain length was studied. Me, Et, and Bu acrylates or methacrylates, in aqueous suspension in the ratio 1:10 with 0.3% of an emulsifier and (NH<sub>4</sub>)<sub>2</sub>S<sub>2</sub>O<sub>8</sub>-K<sub>2</sub>S<sub>2</sub>O<sub>5</sub> were allowed to polymerize after adding various amts. of alc. The results show a maximum at 7% MeOH or EtOH. With BuOH, the rate declines with increased concns. of alc. Similar results are obtained for the degree of viscosity. Acrylates and methacrylates behave alike. The effects of the alcs. on the emulsion polymerization increase with their mol. weight and are predetd. by an increased surface activity, which enhances their dispersing and stabilizing action. The effects of the alcs. increase with the solubility of the monomer in H<sub>2</sub>O.

IT 620113-95-3, Methacrylic acid, polymer with 2,3-dibromohexahydro-4,7-methanoindan-5-yl methacrylate (in emulsion, alc. effect on)

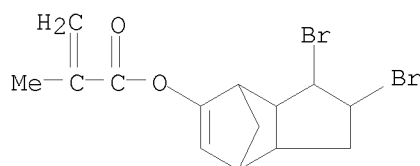
RN 620113-95-3 CAPLUS

CN Methacrylic acid, polymer with 2,3-dibromo-3a,4,7,7a-tetrahydro-4,7-methanoindan-5-yl methacrylate (7CI) (CA INDEX NAME)

CM 1

CRN 620113-94-2

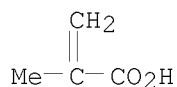
CMF C14 H16 Br2 O2



CM 2

CRN 79-41-4

CMF C4 H6 O2



L9 ANSWER 37 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1964:493166 CAPLUS

DOCUMENT NUMBER: 61:93166

ORIGINAL REFERENCE NO.: 61:16262a-c

TITLE: Dihydroxyalkyl acrylates

INVENTOR(S): Galiano, Francis R.; Mantell, Gerald J.; Rankin, David

PATENT ASSIGNEE(S): Chemical Investors S. A.

SOURCE: 22 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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FR 1366079		19640710	FR 1963-935755	19630522
PRIORITY APPLN. INFO.:			US	19620523

GI For diagram(s), see printed CA Issue.

AB The title compds. (I),  $\text{CH}_2:\text{C}(\text{R})\text{CO}_2(\text{CH}_2)_n\text{C}(\text{R}')(\text{CH}_2\text{OH})_2$ , are prepared by acid hydrolysis of 5-alkylene-m-dioxane esters of structure II, where R and R' are H or C1-4 alkyl, and n is 1-4. Thus, 5 g. II (R = H, R' = Me, n = 1) was added to 100 mL. H<sub>2</sub>O and the pH adjusted to 3 with HCl. The 2-phase system was heated at 40-5° for 2 h. until 1 phase remained. The mixture was cooled, neutralized with Na<sub>2</sub>CO<sub>3</sub>, and filtered. The aqueous solution was extracted with CHCl<sub>3</sub>, dried, and the CHCl<sub>3</sub> removed to give 2,2-bis(hydroxymethyl)propyl acrylate. Similarly prepared were the acrylates and methacrylates of 2,2-bis(hydroxymethyl)ethyl; 2,2-, 3,3-, and 4,4-bis(hydroxymethyl)butyl; 3,3-bis(hydroxymethyl)propyl; 2,2-, 3,3-, and 4,4-bis(hydroxymethyl)pentyl; and 5,5-bis(hydroxymethyl)hexyl alcohols. No properties are given for any of the I. All I were polymerized alone and with styrene, acrylonitrile, butadiene, and Me methacrylate. A terpolymer of I (R = R' = Me, n = 1) with styrene and Bu methacrylate was prepared and used to cure a melamine-HCHO resin. Polymerization of the II followed by acid hydrolysis of the polymer gave the resp. polymer. The reaction of the I with dicarboxylic acids gave polyesters with pendant vinyl groups.

IT 620113-95-3, Methacrylic acid, polymer with 2,3-dibromohexahydro-4,7-methanoindan-5-yl methacrylate (with dihydroxyalkyl acrylates and styrene)

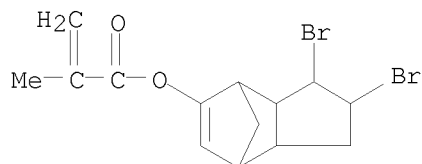
RN 620113-95-3 CAPLUS

CN Methacrylic acid, polymer with 2,3-dibromo-3a,4,7,7a-tetrahydro-4,7-methanoindan-5-yl methacrylate (7CI) (CA INDEX NAME)

CM 1

CRN 620113-94-2

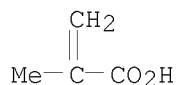
CMF C14 H16 Br2 O2





CM 2

CRN 79-41-4  
CMF C4 H6 O2



L9 ANSWER 38 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1964:462068 CAPLUS  
DOCUMENT NUMBER: 61:62068  
ORIGINAL REFERENCE NO.: 61:10800g-h,10801a-b  
TITLE: 2,3-Dibromohexahydro-4,7-methanoindan-5-yl acrylate  
and methacrylate and their polymers  
INVENTOR(S): Jackson, Winston J., Jr.; Caldwell, John R.; Hill,  
Edward H.  
PATENT ASSIGNEE(S): Eastman Kodak Co.; Eastman Kodak Co.  
SOURCE: 4 pp.  
DOCUMENT TYPE: Patent  
LANGUAGE: Unavailable  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 3143535		19640804	US 1962-248202	19621231
PRIORITY APPLN. INFO.:			US	19621231

GI For diagram(s), see printed CA Issue.

AB A new class of monomeric compds. of the general formula I, where R is H or Me, were prepared For example, 105 g. Br in 100 ml. CCl<sub>4</sub> was added to 100 g. II in 120 ml. CCl<sub>4</sub> at 0-5°, stirred for 20 min., after which aqueous NaHSO<sub>3</sub> added. The organic layer was washed with H<sub>2</sub>O, dried, and the solvent removed to give a viscous oil (III). III (62 g.), 18 g. CH<sub>2</sub>:CHCO<sub>2</sub>H, 200 ml. C<sub>6</sub>H<sub>6</sub>, 0.1 g. methylene blue, and 2 g. p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H were refluxed. After 3.6 ml. H<sub>2</sub>O was collected, the solution was cooled, stirred with activated clay, washed with aqueous NaHCO<sub>3</sub>, dried, and concentrated in vacuo to yield a viscous oil, I (R = H). Similarly, I (R = Me), a viscous oil, was also prepared I (R = H) (20 g.), 0.6 g. lauryl sulfate, 0.2 g. (NH<sub>4</sub>)<sub>2</sub>S<sub>2</sub>O<sub>8</sub>, 0.1 g. NaHSO<sub>3</sub>, and 100 ml. H<sub>2</sub>O were tumbled in a pressure bottle at 50° for 24 hrs. The product was washed with water and iso-PrOH and dried to give 18.3 g. homopolymer, soluble in CH<sub>2</sub>Cl<sub>2</sub>. Clear, hard films could be cast which had a hot-bar sticking point of 122° and which were self-extinguishing. I (R = H) (35 g.), 65 g. acrylonitrile, 500 ml. H<sub>2</sub>O, 1.0 g. K<sub>2</sub>S<sub>2</sub>O<sub>8</sub>, 0.5 g. NaHSO<sub>3</sub>, and 4.0 g. Na dodecylbenzenesulfonate were heated at 60° for 18 hrs. to give 92.4 g. copolymer containing 34.4% acrylate (from Br analysis). The copolymer was dissolved in HCONMe<sub>2</sub> and dry-spun into fibers.

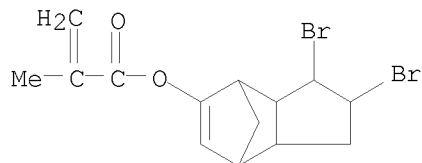
IT 620113-95-3P, Methacrylic acid, polymer with  
2,3-dibromohexahydro-4,7-methanoindan-5-yl methacrylate  
859048-09-2P, Methacrylic acid, with  
2,3-dibromohexahydro-4,7-methanoindan-5-yl acrylate  
RL: PREP (Preparation)  
(preparation of)

RN 620113-95-3 CAPLUS

CN Methacrylic acid, polymer with 2,3-dibromo-3a,4,7,7a-tetrahydro-4,7-methanoindan-5-yl methacrylate (7CI) (CA INDEX NAME)

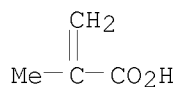
CM 1

CRN 620113-94-2  
CMF C14 H16 Br2 O2



CM 2

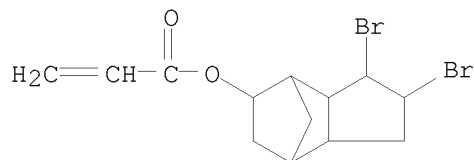
CRN 79-41-4  
CMF C4 H6 O2



RN 859048-09-2 CAPLUS  
CN INDEX NAME NOT YET ASSIGNED

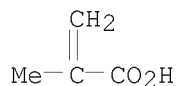
CM 1

CRN 96433-61-3  
CMF C13 H16 Br2 O2



CM 2

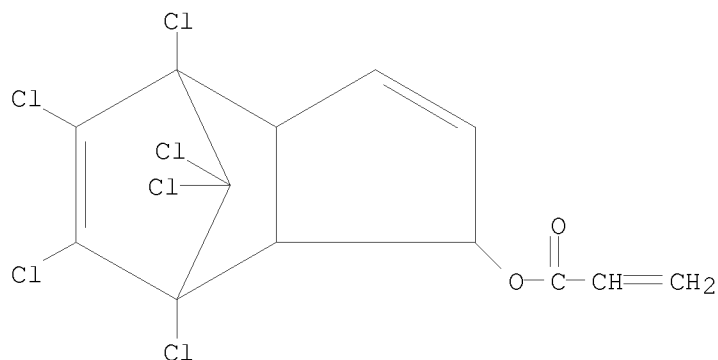
CRN 79-41-4  
CMF C4 H6 O2



L9 ANSWER 39 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 1951:24281 CAPLUS  
DOCUMENT NUMBER: 45:24281  
ORIGINAL REFERENCE NO.: 45:4264h-i  
TITLE: 1-Hydroxy-3a,4,7,7a-tetrahydro-4,5,6,7,8,8-hexachloro-4,7-methanoindene  
INVENTOR(S): Herzfeld, Simon H.; Ordas, Eugene P.  
PATENT ASSIGNEE(S): Velsicol Corp.

DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	US 2528656		19501107	US 1948-40156	19480722
AB	H2O 800, dioxane 200 ml., 1-bromochlordene (cf. preceding abstract) 167.2, and K2CO3 30.4 g. are refluxed with stirring 75 hrs., diluted with 3 vols. H2O, stirred until the organic phase has solidified, and the solid filtered off, washed with H2O, air-dried, then in vacuo over KOH, and recrystd. from hexane to give 1-hydroxy-3a,4,7,7a-tetrahydro-4,5,6,7,8,8-hexachloro-4,7-methanoindene, m. 197-200°, useful as an insecticide.				
IT	875823-06-6P, Acrylic acid, ester with 4,5,6,7,8,8-hexachloro-3a,4,7,7a-tetrahydro-4,7-methanoinden-1-ol				
	RL: PREP (Preparation) (preparation of)				
RN	875823-06-6 CAPLUS				
CN	2-Propenoic acid, 4,5,6,7,8,8-hexachloro-3a,4,7,7a-tetrahydro-4,7-methano-1H-inden-1-yl ester (CA INDEX NAME)				



L9 ANSWER 40 OF 40 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1951:24280 CAPLUS  
 DOCUMENT NUMBER: 45:24280  
 ORIGINAL REFERENCE NO.: 45:4264f-h  
 TITLE: 1-Acyloxy-3a,4,7,7a-tetrahydro-4,5,6,7,8,8-hexachloro-4,7-methanoindenes  
 INVENTOR(S): Herzfeld, Simon H.; Ordas, Eugene P.  
 PATENT ASSIGNEE(S): Velsicol Corp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	US 2528655		19501107	US 1948-40155	19480722
AB	To chlordene (cf. preceding abstract) 339 and lauroyl peroxide 5 g. in 800 ml. CCl4 at 55° was added with stirring 176 g. Br in 200 ml. CCl4 at such a rate as to keep the temperature at 55°, the mixture refluxed 30 min., washed with aqueous NaHSO3, then with H2O, dried over CaCl2, then MgSO4, the solvent removed, and the residue distilled to give 1-bromochlordene (I), b0.05 130-2°. I 60 and AcONa 35.4 g. refluxed in 180 ml. AcOH 6 hrs. give 1-acetoxychlordene, crystallized from C6H6petr. ether mixture The products are useful as insecticides. Other derivs. claimed are the				

formyloxy, benzyloxy, acrylyloxy and lauroyloxy.

IT 875823-06-6P, Acrylic acid, ester with  
4,5,6,7,8,8-hexachloro-3a,4,7,7a-tetrahydro-4,7-methanoinden-1-ol  
RL: PREP (Preparation)  
(preparation of)

RN 875823-06-6 CAPLUS

CN 2-Propenoic acid, 4,5,6,7,8,8-hexachloro-3a,4,7,7a-tetrahydro-4,7-methano-  
1H-inden-1-yl ester (CA INDEX NAME)

